THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

CATALOGUE

1985-1989

The University of North Carolina at Wilmington

1985-86 Undergraduate and Graduate CATALOGUE

Digitized by the Internet Archive
in 2011 with funding from
LYRASIS Members and Sloan Foundation

http://www.archive.org/details/univofnort3740198589univ

The University of North Carolina at Wilmington

1985-86 Undergraduate and Graduate

Catalogue

Bulletin 37

The University of North Carolina at Wilmington is committed to equality of educational opportunities and does not discriminate against applicants, students, or employees based on race, color, national origin, religion, sex, age, or handicap. Moreover, The University of North Carolina at Wilmington is open to people of all races and actively seeks to promote racial integration by recruiting and enrolling a larger number of black students.

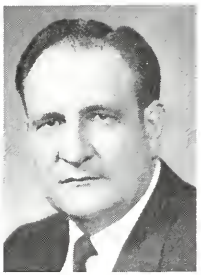
WILLIAM MADISON RANDALL LIBRARY UNC

TABLE OF CONTENTS

Calendar of Events 5
Administrative Officers 7
The University of North Carolina 10
The University of North Carolina at Wilmington 12
Admissions 19
Expenses 27
Financial Aid 33
Student Affairs 43
Student Life 51
Academic Regulations 57
Degree Requirements and Course Descriptions 65
Graduate Studies 223
Faculty 259
Index 277
Campus Map 282

All provisions, regulations, degree programs, course listings, etc., in effect when this catalogue went to press are subject to revision by the appropriate governing bodies of The University of North Carolina at Wilmington.

12,000 copies of this public document were printed at a cost of $14,874.70 or $1.24 per copy (G.S. 143-170.1)



John J. Burney, Jr.
Chairman, Board of Trustees

Dr. William H. Wagoner
Chancellor

On behalf of the Board of Trustees, we welcome all students to *your* University.

Your adventure in education will be the most exciting and lasting chapter of your life. Your quest for knowledge and guidance, lasting friendships and memories, will be an experience that no one can ever take from you.

The Board of Trustees, administration and our excellent faculty will provide you with a climate for adventure and learning.

We welcome you in this joint adventure with enthusiasm and pride.

Very truly yours,

John J. Burney, Jr.
Chairman, Board of Trustees

It is with a great deal of pleasure that I welcome each of you to The University of North Carolina at Wilmington. You will find that this is a friendly community of scholars, and I believe you will enjoy being a part of it as much as I do.

This campus is one of the fastest growing campuses in the University system, and we are proud of our accomplishments over the years.

The programs offered by the University are designed to serve a broad spectrum of interests in the liberal arts and sciences. Undergraduate instruction and research opportunities are provided in fine arts, humanities, natural and social sciences, teacher education and other professional disciplines. Pre-professional programs in medicine, pharmacy, engineering, forestry, dentistry, agriculture and law are also offered. Strong programs in the fine arts include studio art, drama and applied music.

Programs available through UNC-Wilmington's graduate school include several options in the School of Education, a Master of Science program for Marine Biology and a unique and innovative program leading to the degree of Master of Business Administration.

We welcome you to "UNC by the Sea"– a very special place!!

Sincerely,

William H. Wagoner
Chancellor

1985

JANUARY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

FEBRUARY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

MARCH

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

APRIL

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

JUNE

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

JULY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

AUGUST

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

SEPTEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

OCTOBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1986

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

MARCH

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1987

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

OCTOBER

S	M	T	W	T	F	S
			1	2	3	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

CALENDAR OF EVENTS

Fall Semester, 1985

August 24, Saturday	On-campus housing opens for NEW students at 12:00 noon Orientation begins
August 25, Sunday	On-campus housing opens for RETURNING students Orientation
August 26, Monday	Orientation and advising
August 27, Tuesday	Registration
August 28, Wednesday	Classes begin
September 2, Monday	Labor Day holiday
September 5, Thursday	Last day to drop or add without a grade
September 19, Thursday	Faculty Meeting
October 8, Tuesday	Last day to withdraw with W– Undergraduate Students
October 16, Wednesday	Fall vacation begins 10:30 p.m.
October 21, Monday	Fall vacation ends 8:00 a.m.
October 30, Wednesday	Graduation application deadline – Spring 1986
November 13, Wednesday	Last day to withdraw WP– Graduate Students
November 27, Wednesday	Thanksgiving vacation begins 10:30 p.m.
December 2, Monday	Thanksgiving vacation ends 8:00 a.m.
December 10, Tuesday	Last day of classes
December 11-13, Wednesday-Friday	Final Examinations
December 16-19, Monday-Thursday	Final Examinations
December 19, Thursday	Fall Semester ends

Spring Semester, 1986

January 8, Wednesday	On-campus housing opens for NEW students Orientation begins
January 9, Thursday	Orientation and advising
January 10, Friday	On-campus housing opens for RETURNING students
January 10, Friday	Registration
January 13, Monday	Classes begin
January 20, Monday	Last day to drop or add without a grade
February 21, Friday	Last day to withdraw with W– Undergraduate Students
February 28, Friday	Spring holidays begin 10:30 p.m.
March 10, Monday	Spring holidays end 8:00 a.m.
March 21, Friday	Graduation application deadline – Summer 1986
March 28, Friday	Easter vacation begins 10:30 p.m.
April 1, Tuesday	Easter vacation ends 8:00 a.m.
April 3, Thursday	Last day to withdraw WP– Graduate Students

April 10, Thursday	Faculty Meeting
April 30, Wednesday	Last day of classes
May 1-2, Thursday-Friday	Final Examinations
May 5-9, Monday-Friday	Final Examinations
May 9, Friday	Spring Semester ends
May 17, Saturday	Commencement

Summer Session, 1st, 1986

May 25, Sunday	On-campus housing opens
May 27, Tuesday	Registration
May 28, Wednesday	Classes begin; last day for registration
May 30, Friday	Last day to drop or add without a grade
June 27, Friday	Graduation application deadline – Fall 1986
June 30, Monday	Final Examinations; term ends

Summer Session, 2nd, 1986

July 6, Sunday	On-campus housing opens
July 8, Tuesday	Registration
July 9, Wednesday	Classes begin; last day for registration
July 11, Friday	Last day to drop or add without a grade
August 11, Monday	Final Examinations; term ends

ADMINISTRATIVE OFFICERS OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

William H. Wagoner, Ph.D. ..... *Chancellor*

ACADEMIC AFFAIRS

Charles L. Cahill, Ph.D. ..... *Vice Chancellor for Academic Affairs*
Daniel B. Plyler, Ph.D. ..... *Dean, College of Arts and Sciences*
Norman R. Kaylor, Ph.D. ..... *Dean, Cameron School of Business Administration*
Roy E. Harkin, Ph.D. ..... *Dean, School of Education*
Marlene M. Rosenkoetter, Ph.D. ..... *Acting Dean, School of Nursing*
James K. McGowan, Ph.D. ..... *Director of Graduate Studies*
Paul E. Hosier, Ph.D. *Assistant Vice Chancellor for Computer and Information Systems*
Ralph W. Brauer, Ph.D. ..... *Director, The Institute for Marine Biomedical Research*
Eugene W. Huguelet, M.L.S. ..... *Director of Library Services*
Catherine C. Cleare, Ph.D..... *Director of Mathematics and Science Education Center*
John J. Manock, Ph.D. ..... *Director of Research Administration*
James C. Edmundson, Ed.D. ..... *Director of Special Programs*
Diane M. Zeeman, M.A. ..... *Director of Undergraduate Admissions*
Dorothy P. Marshall, B.S. ..... *Registrar*

BUSINESS AFFAIRS

Robert O. Walton, Jr., B.A..... *Vice Chancellor for Business Affairs*
Karen R. Powers, M.B.A. ..... *Director of Accounting*
Charles W. King, M.A. ..... *Director of Business Services*
Joseph M. Johnson, Jr., B.S. ..... *Director of Campus Police Services*
Timothy A. Jordan, M.B.A. ..... *Director of Financial Services*
Nikki S. Howard, B.S., C.P.A. ..... *Director of Internal Auditing*
William R. Calloway, M.P.A. ..... *Director of Personnel Services*
Roger E. Fry, B.S.C.E., P.E. ..... *Director of Physical Plant Services*
Charles L. Sanders, III..... *Director of Purchasing Services*
Suzanne Bulla, B.S. ..... *Director of Systems and Budget*

STUDENT AFFAIRS

William A. Bryan, Ed.D. ..... *Vice Chancellor for Student Affairs*
Richard H. Mullendore, Ph.D. ..... *Dean of Students*
Sandra A. Harkin, A.B. ..... *Director of Career Planning & Placement*
Joseph V. Capell, M.Div. ..... *Director of Financial Aid*
Diane L. McKinstry, Ph.D. ..... *Director of Student Development Center*
Linda Moore, M.Ed. ..... *Director of University Union*

SUPPORTING SERVICES

William J. Brooks, M.S. ..... *Director of Athletics*
M. Tyrone Rowell, M.A. ..... *Director of Development Services*
Robert E. Fry, M.S.P.H. ..... *Director of Institutional Research*
Ralph H. Parker, M.Ed. ..... *Director of Minority Affairs*
Isabell L. Foushee, M.A. ..... *Federal Compliance Officer*
Alfred O. Barry, M.S. ..... *Safety Officer*

THE UNIVERSITY

THE UNIVERSITY OF NORTH CAROLINA

SIXTEEN CONSTITUENT INSTITUTIONS

William C. Friday, B.S., LL.B., LL.D., D.C.L. ..... *President*
Raymond H. Dawson, B.A., M.A., Ph.D. ..... *Vice President-Academic Affairs*
L. Felix Joyner, A.B. ..... *Vice President-Finance*
Roy Carroll, B.A., M.A., Ph.D. ..... *Vice President-Planning*
Cleon F. Thompson, Jr., B.S., M.S., Ph.D. ..... *Vice President-Student Services and Special Programs*
Edgar Walton Jones, B.S., M.S., Ph.D. .... *Vice President-Research and Public Service*
Arnold K. King, A.B., A.M., Ph.D. ..... *Assistant to the President*
R. D. McMillan, Jr., B.S. ..... *Assistant to the President for Governmental Affairs*
Richard H. Robinson, Jr., A.B., LL.B. ..... *Assistant to the President*
John W. Dunlop, B.A. *Director, The University of North Carolina Center for Public Television*

BOARD OF GOVERNORS THE UNIVERSITY OF NORTH CAROLINA

Philip G. Carson, Chairman
Jacob H. Froelich, Jr., Vice Chairman
Mrs. Geneva J. Bowe, Secretary

Class of 1985

Furman P. Bodenheimer
Laurence A. Cobb
John Edwin Davenport
Charles Z. Flack, Jr.
James E. Holmes
Reginald F. McCoy
Mrs. John F. McNair, III
Maceo A. Sloan

Class of 1987

B. Irvin Boyle
Mrs. Robert H. Bullock
William A. Dees, Jr.
Jacob H. Froelich, Jr.
James E. Holshouser, Jr.
William A. Johnson
Robert L. Jones
E. B. Turner

Class of 1989

Mrs. Geneva J. Bowe
Philip G. Carson
Walter R. Davis
R. Phillip Haire
Mrs. Hugh Morton
Asa T. Spaulding, Jr.
David J. Whichard, II
William K. Woltz

Class of 1991

Irwin Belk
Wayne A. Corpening
J. Earl Danieley
Mrs. Stanley H. Fox
John R. Jordan, Jr.
Samuel H. Poole
J. Aaron Prevost
Louis T. Randolph

HISTORY OF THE UNIVERSITY

The University of North Carolina is comprised of all the public institutions of higher education in North Carolina that confer degrees at the baccalaureate level or higher. The University was authorized by the State Constitution in 1776, and it was chartered in 1789 by the General Assembly.

The University of North Carolina opened its doors to students at Chapel Hill in 1795. Thereafter, beginning in the latter part of the nineteenth century, the General Assembly of North Carolina has established and supported fifteen other public senior institutions in keeping with Article IX, Section 8, of the Constitution of North Carolina which provides that the "General Assembly shall maintain a public system of higher education, comprising The University of North Carolina and such other institutions of higher education as the General Assembly may deem wise."

By 1969, The University of North Carolina included six constituent institutions, governed by a single Board of Trustees. This multi-campus University had its beginnings in legislation enacted in 1931 that defined The University of North Carolina to include The University of North Carolina at Chapel Hill, North Carolina State University at Raleigh, and The University of North Carolina at Greensboro. In the 1960's three additional campuses were added: The University of North Carolina at Charlotte, The University of North Carolina at Asheville, and The University of North Carolina at Wilmington.

Beginning in 1877, the General Assembly of North Carolina established or acquired ten additional separately governed state-supported senior institutions of higher education. They are: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. Then, in 1971, the General Assembly redefined The University of North Carolina, and under the terms of that legislation all sixteen public senior institutions became constituent institutions of The University of North Carolina.

The constitutionally authorized Board of Trustees of the six campus University of North Carolina was designated the Board of Governors and this body is by law The University of North Carolina. The Board of Governors consists of thirty-two members elected by the General Assembly, and it is charged with "the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." The chief executive officer of The University is the President.

Each constituent institution of The University has its own faculty and student body. The chief administrative officer of each institution is the chancellor, and the chancellors are responsible to the President.

Each constituent institution also has a board of trustees composed of thirteen members: eight elected by the Board of Governors, four appointed by the Governor, and the elected president of the student body *ex officio.* (The School of the Arts has two additional *ex officio* trustees.) The principal powers of these institutional boards are exercised under a delegation of authority from the Board of Governors.

BOARD OF TRUSTEES
THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

John J. Burney, Jr., Chairman
Mrs. Margaret F. Heyward, Vice Chairman
B. D. Schwartz, Secretary

Class of 1985

John J. Burney, Jr.
John B. Codington
Hubert A. Eaton
Mrs. Margaret F. Heyward
Clifton L. Moore, Jr.
B. D. Schwartz

Class of 1987

Mrs. Elizabeth H. Cameron
W. Albert Corbett
F. Pete Fensel
Bishop Ruben L. Speaks
Mrs. Julia W. Taylor
John D. Warlick, Jr.

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington College, a locally supported and governed institution, to provide the youth and adults of New Hanover County and Southeastern North Carolina an opportunity for two years of university parallel study, semiprofessional training and vocational-technical education at moderate expense. From these beginnings and goals and through a series of transformations with ever-widening programs and aspirations, in 1969 it became a constituent institution of The University of North Carolina, whose purpose, resources, and direction it shares.

The University of North Carolina at Wilmington is a community of scholars dedicated to teaching, learning, creating, and extending knowledge through research. Its objectives are to stimulate curiosity, imagination, and creativity; to communicate both general knowledge and the facts and concepts particular to various disciplines and professional programs; to foster clear thinking, rational decision-making, and fluent, accurate communication; and to develop skills appropriate to the various disciplines and professional programs.

The programs offered by the University include four-year programs leading to the Bachelor of Arts and Bachelor of Science degrees within the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing; graduate programs leading to the Master of Education, the Master of Science, and the Master of Business Administration degrees; a variety of pre-professional programs; a two-year program leading to the Associate in Arts degree in Nursing (last class admitted 1984); and special programs in a variety of areas, including Marine Science Research, Army ROTC, and Continuing Education. The University's recent development has made possible increasingly diverse contributions, some of international significance. Its aim is to continue and to improve its innovative programming and comprehensive approach to meeting the wide-ranging needs of the region, the state, and the larger community.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the North Carolina College Conference and under the administration of the Directorate of Extension of The University of North Carolina at

Chapel Hill. The center offered courses on the freshman level to some 250 students during the academic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution under the control of the New Hanover County Board of Education. In 1948 Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952 the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree.

By vote of the Board of Trustees of The University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state-supported senior institutions into the university. Thus The University of North Carolina now comprises 16 institutions.

On August 22, 1977, the Board of Governors of The University of North Carolina authorized The University of North Carolina at Wilmington to offer its first graduate programs at the master's level.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association of Colleges and Schools and the North Carolina Association of Colleges and Universities. The School of Education is accredited by the National Council for Accreditation of Teacher Education. The University also holds membership in the American Assembly of Collegiate Schools of Business, the American Council on Education, the American Placement Council, and the Council for Advancement and Support of Education, and is on the list of schools approved by the American Chemical Society.

THE FACULTY

The University seeks to attract and maintain a faculty of outstanding individuals who are capable of contributing to the enrichment of its diverse and comprehensive instructional and research programs. Its faculty members come from all geographic sections of the United States and several foreign countries, bringing to this campus a rich variety of educational experiences, training and scholarship. Of the more than 329 instructional and research faculty, more than 66 percent hold doctoral degrees.

In addition to its primary responsibilities of teaching, the faculty actively engages in research and creative pursuits. Research interests are widespread in the various disciplines within the humanities, natural, physical, behavioral, and social sciences, and the profes-

sions. One of the major areas of interest is the marine sciences in which extensive research is conducted in such fields as marine biology, chemical and physical oceanography, and coastal environments. Many of these research activities culminate in the publication of books and scholarly articles and presentation of papers at professional associations, bringing acclaim to the University as well as the faculty. Certain other faculty members are widely recognized for their outstanding achievements in the literary, visual, and performing arts.

As an outgrowth of their professional training and/or University affiliation, UNCW faculty members serve the community at large in various ways. Many participate in artistic, business, educational, governmental, religious and other professional and humanitarian activities. Inasmuch as the University is dedicated to serving its total constituency, faculty members are encouraged to serve in an educational, advisory or informational capacity to enhance the welfare of the community at large.

BOARD OF TRUSTEES' TEACHING EXCELLENCE AWARD

The Board of Trustees of The University of North Carolina at Wilmington, taking note of this institution's commitment of teaching excellence, has established the Board of Trustees' Teaching Excellence Award. Recipients of the award manifest excellence as a way of life and stand out among the faculty as persons who have made and continue to make a significant contribution to higher education through their dedication and service to students. The award carries with it both an honor and a responsibility: it specifies a member of the faculty as a person of excellence and it calls upon the person so honored to share that excellence with colleagues and students.

THE FOUNDATION CHAIR

The Foundation of The University of North Carolina at Wilmington is a charitable, nonprofit corporation established for the sole purpose of supporting the University. Through private donations it supports a faculty Chair, designated to assist the University in its long-range efforts concerning faculty development and recruitment. The Foundation Chair, which is currently allocated to the various academic disciplines on a rotating basis, enables the University to bring to this campus renowned scholars and performing artists. In filling the Chair a special effort is made to select individuals whose contributions will benefit not only the University, but also the community at large.

NOTE: For faculty directory see page 260.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state on a 650-acre tract on State Highway 132 (College Road) midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River and is about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. The standard metropolitan area, of which Wilmington is a part, now has a population in excess of 97,400. Several main highways lead into the city, and commercial air service provides easy access to other metropolitan areas north, south, and west.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious well-landscaped campus was first occupied by the University in 1961. The number of buildings has increased from three in 1961 to forty today. There are several athletic fields and ample space for parking.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings, as well as the cafeteria and residence halls, are completely air-conditioned.

Edwin A. Alderman Hall, which houses administrative offices, is named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University.

Hoggard Hall, an academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the School of Nursing, laboratories, the computing center, special programs, and faculty and staff offices.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the Creative Arts Department. It contains classrooms, faculty offices, art and music studios, the music library, and electronic music studio, dramatic workshops and the S.R.O. Theatre. It also contains an auditorium with a seating capacity of approximately 100.

Will S. DeLoach Hall houses the department of Chemical and Physical Sciences. It is equipped with classrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped laboratories for the physical sciences.

The Marine Science Building was completed in 1974. It houses the departments of Biological Sciences and Earth Sciences and contains classrooms and laboratories.

Arnold Kimsey King Hall houses the School of Education and contains an auditorium with a seating capacity of 191, classrooms, faculty offices, and a curriculum laboratory.

Isaac Bear Hall, completed in 1972, contains classrooms, a computer laboratory, and faculty offices for the Cameron School of Business Administration.

Morton Hall, named for Margaret Shannon Morton, was completed in October 1978 and houses the departments of English, History, Mathematical Sciences, and Modern Languages. The building contains classrooms, seminar rooms, and the Bryan Auditorium which seats 200.

The Social and Behavioral Sciences Building was completed in 1980. It houses the departments of Psychology, Philosophy and Religion, Political Science, and Sociology/Anthropology, as well as some offices of the campus computing center.

The Sarah Graham Kenan Auditorium, a gift from the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains seminar rooms for the Department of Creative Arts.

Hanover Hall and Trask Coliseum, the physical education complex, provide modern facilities for the athletic activities of all students, including a large playing floor with rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment.

The Raiford G. Trask Health and Physical Education Building provides the campus with a 6,000 seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction was completed in the fall of 1977.

The University Union is the newest and second largest building on campus. Serving as the "living room" of the University community, it houses a wide variety of services, student and administrative offices, while providing space for campus activities and meetings.

Hinton James Hall, named for a New Hanover County resident who was the first student to enroll at The University of North Carolina, houses the Financial Aid Office, Registrar Services, Undergraduate Admissions, Cashier, and the office of the dean of the College of Arts and Sciences.

A new University Student Support Center will open in the summer of 1985. Centrally located adjacent to the University Union, it will house the University Bookstore, Student Health Services, and Student Development Center.

The University Cafeteria, opened in 1971, provides space for food services for students and faculty and contains the most modern food service equipment.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, opened in June 1976, accommodates 200 students. The 200-student residence hall, Addison Hewlett, Jr., Hall, opened in the fall of 1978. Another residence hall for 220 students, Frederick B. Graham Hall, was occupied in the fall of 1979. In the fall of 1981, the 400-student apartment complex was completed and occupied. Construction of housing for an additional 160 students is currently in progress and will open in the fall of 1985.

WILLIAM MADISON RANDALL LIBRARY

The William Madison Randall Library, completed in 1969, is named for the President Emeritus of Wilmington College. It has a seating capacity for more than 500 readers and space for 240,000 volumes. The collection contains over 240,000 volumes shelved in open stack areas according to the Library of Congress classification system. Rare and unique items are housed in the Helen Hagan Rare Book Room. Some 3800 serial publications are received regularly on subscription; and extensive journal backfiles are maintained in bound volumes and in microformat. Coin-operated machines for copying microforms and hardbound materials are available.

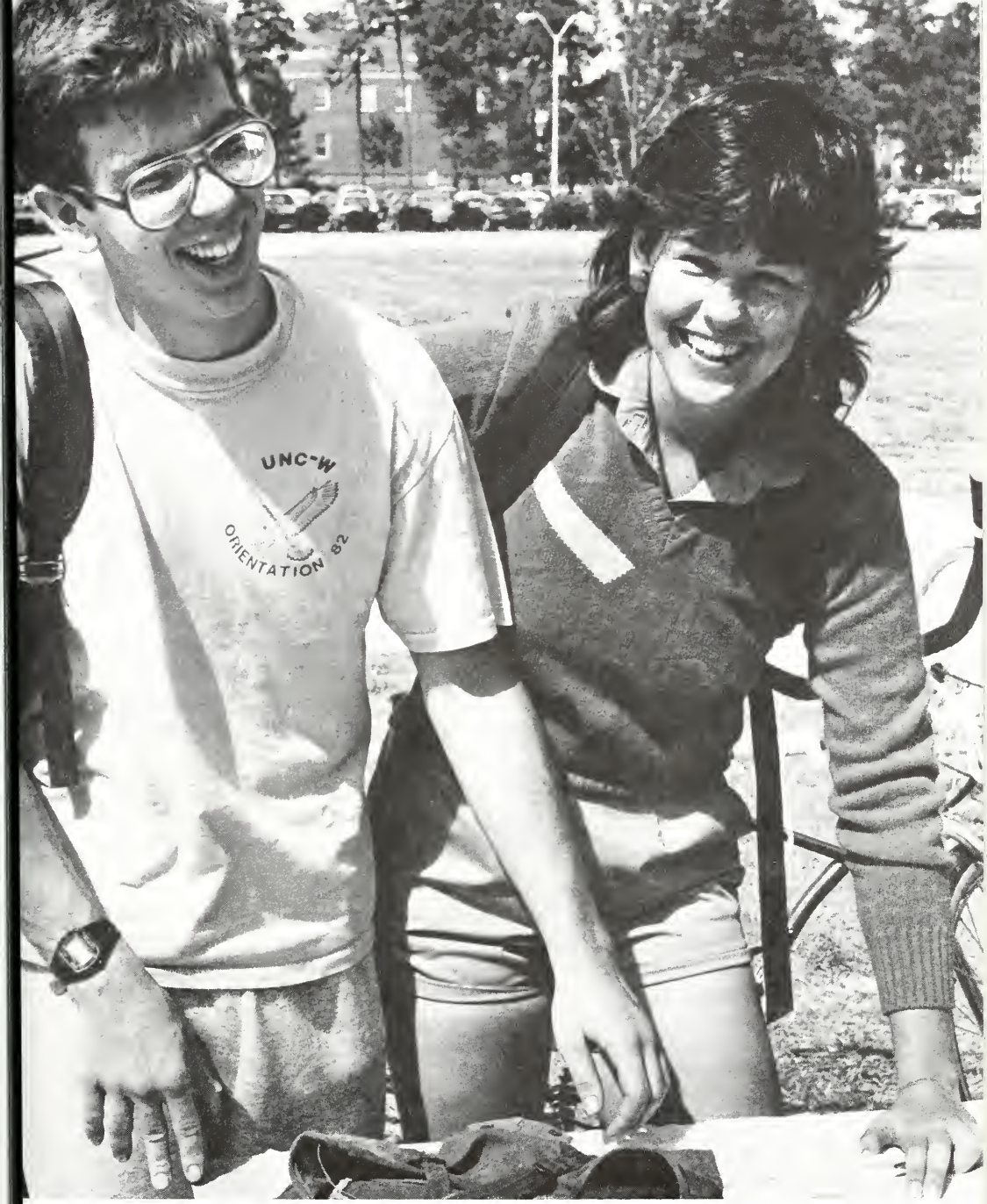
The Randall Library is a partial depository for United States government publications, and the collection now consists of over 220,000 documents. These materials are always available to all of the library's users.

A growing audiovisual collection containing materials in several formats is conveniently located on the first floor. A 73-seat auditorium is equipped for various types of audiovisual use.

The Randall Library is open at least 97 hours per week during the regular academic session. Several reference librarians are available to provide assistance and guidance to students and faculty who need their services.

HERBERT BLUETHENTHAL MEMORIAL WILDFLOWER PRESERVE

The Herbert Bluethenthal Memorial Wildflower Preserve is a tract of approximately 10 acres set aside on the campus by the University's Board of Trustees in response to a donation by Mrs. Herbert Bluethenthal of Wilmington. The Preserve includes a wide variety of plant communities, marked trails to follow, and labeled plants to observe. It is dedicated to the preservation of the rich and varied flora of Southeastern North Carolina and has been designed to provide a place of contentment and pleasure for those who enjoy and appreciate our native plants.



ADMISSIONS

ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. Students must have the motivation and the determination to avail themselves of the learning experiences that will be beneficial to them if they are to attain both academic and personal enrichment. As a state-supported institution, the University is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may apply to enter the University at the beginning of the fall or spring semester and at the beginning of each summer term. Applications for fall semester must be filed by July 1; applications for spring semester must be filed by November 1. Students desiring to enroll in summer school must make application prior to the summer session registration date. The academic qualifications of each applicant are carefully reviewed by admissions personnel in a conscientious effort to admit students who have the potential for further academic achievement and growth.

Overenrollment or state budgetary constraints may require the restriction of admissions during a given year. This may require the adjustment of minimum requirements or the establishment of earlier application deadlines.

APPLICATION DATES

All students applying for admission or readmission to The University of North Carolina at Wilmington must complete their application for admission or their re-enrollment form by July 1 for the fall semester and by November 1 for the spring semester. Applications for summer sessions must be received in the Office of Admissions *prior* to each summer session registration date.

NOTIFICATION OF ACCEPTANCE

Applicants are notified of action taken on their application as soon as possible. Admission decisions can be made only after all required information is in the Office of Admissions.

ADMISSIONS-FRESHMEN

The requirements for admission to The University of North Carolina at Wilmington are:

(1) Graduation from an approved or accredited high school, or a GED certificate.
(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).
(3) An overall "C" average on all work attempted in grades 9-12.
(4) The following specific high school units:
    4 units in English
    *2 units in one foreign language
    2 units in Mathematics (Algebra I and Geometry or Algebra II)
    2 units in Social Science
    1 unit in Science

    *Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they may graduate with the baccalaureate degree.

Admissions requirements will change, effective Fall 1988 semester. These new requirements are outlined at the end of this Admissions section.

Application Procedure for Freshmen

Applicants are required to comply with the following:

1. Submit a completed application form by the deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school work or GED. The transcript must be sent directly to the Office of Admissions, The University of North Carolina at Wilmington, 601 S. College Road, Wilmington, North Carolina 28403-3297.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the ACT of the American College Testing Program. Because of deadlines for filing application to take the tests, arrangements must be made well in advance of the testing date so that the application is received by the testing company in time. Applicants are accepted to UNCW on the basis of their junior or senior SAT or ACT scores. For information about the SAT, contact the secondary school guidance counselor or write or call College Board ATP, P.O. Box 592, Princeton, New Jersey 08540, (609) 921-9023. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, P.O. Box 1025, Berkeley, California 94701, (415) 849-0950. For information about the American College Testing Program, write The College Testing Program, Program Services Department, P.O. Box 168, Iowa City, Iowa 52243.

It is important that the high school transcript, or GED, and test scores reach the University by the application deadline date so that all matters relating to the application may be complete before the opening of the semester in which the student expects to register.

ADMISSIONS-TRANSFER STUDENTS

A student wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) must be eligible to return to the institution last attended and (2) must have attained at least a "C" average (2.0 on 4.0 system) based on all courses attempted at all institutions attended. Transfer students with less than 24 semester hours of transferable credit must also meet the freshman entrance requirements.

A student seeking admission by transfer of credits is required to have all transcripts of previous college or university work forwarded to the Office of Admissions by the Registrar of each institution he has attended. Even though no transfer of credit may be involved, all previous college or university work must be certified by transcripts or records of attendance. **An official high school transcript or GED must also be submitted.**

Application Procedure for Transfer Students

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form by the application deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Submit a completed University questionnaire. This questionnaire is included in the transfer admissions packet.

3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that the Registrar of each institution attended send an official transcript directly to the Office of Admissions by the application deadline date.

4. Have an official high school transcript or GED, including test scores, sent to the Office of Admissions by the application deadline date.

Official credit evaluation of transcripts will be done after admission when confirmation card is returned by student.

ADMISSIONS-NURSING, BUSINESS ADMINISTRATION, EDUCATION

Admission to the Bachelor of Science Degree Programs in Nursing or Business Administration, and the Bachelor of Arts Degree Program in Education requires application to and acceptance by the School of Nursing, School of Business, or School of Education in addition to acceptance by the University.

ADMISSIONS-FORMER STUDENTS (Re-enrolling)

Former UNCW students who wish to return to the University must apply to the Office of Admissions for readmission prior to July 1 for the fall semester or November 1 for the spring semester. A former student who has attended another college or university since his last enrollment at UNCW is required to submit official transcripts from such institutions before he can be considered for readmission.

The Three-year Rule

Any UNCW degree student who has been out of school for at least three years and has not attended any other institution since leaving UNCW is eligible to re-enter under the "three-year rule."

The student who elects to have the three-year rule applied will have neither a quality point deficit to overcome, nor hours of credit for those courses in which "D" grades were attained. Only courses in which a grade of "C" or better was earned will be counted toward graduation. Nevertheless, this option will not alter the student's original academic record. The student's quality point average will begin at the time he resumes his studies. He will be required to maintain a "C" average on a semester basis to be eligible to continue. Degree requirements will be the requirements in effect at the time he resumes his education.

The student must exercise his option concerning the three-year rule at the time he applies for admission to the University. Once the student has exercised his option, he may not later reverse it.

Any former student of an accredited college or university who has not attended school for at least three years may apply to the Admissions Appeals Committee for admission consideration under the three-year rule.

ADMISSIONS-UNCLASSIFIED STUDENTS

Individuals may enroll in the University as unclassified students by meeting the appropriate requirements for admission as stated below:

1. A transfer student who has not been enrolled in an institution of higher education for at least one year and who has not been academically suspended within the last three years may apply for admission as an unclassified student.
2. A high school graduate who has not attended an institution of higher education and has been graduated at least two years may apply for admission as an unclassified student.
3. Official college transcripts (transfers) and high school transcript or GED (transfers *and* freshmen) must be sent to the Office of Admissions by the application deadline date.

Students who enroll as unclassified students may take any undergraduate course as long as the prerequisite listed in the course description is honored. Unclassified students are limited to two courses per semester or summer term. **An unclassified student may apply for admission as a degree candidate upon completing a minimum of 15 semester hours with a "C" average on all work attempted.** The student must complete English 101-102 and three semester hours of basic mathematics with a "C" or better before being considered for

admission as a degree candidate. An unclassified transfer student who has completed English 101-102 and three semester hours of basic mathematics with a "C" or better will be considered as having met this requirement.

To avoid delay in having applications considered for change-over admission as degree candidates, unclassified students are advised to apply prior to the application deadline established for the semester. The maximum number of hours allowed students in the unclassified category is 30 semester hours. When this limit is reached, the student must be eligible to apply for admission consideration as a degree candidate or terminate his enrollment with the University.

Unclassified students are subject to the academic regulations of the University as applicable.

ADMISSIONS-SPECIAL STUDENTS

Any individual who already possesses a college degree and wishes to enroll for an undergraduate course at UNCW or any individual with a degree who wishes to work toward a second baccalaureate degree must apply to the Office of Admissions before the application deadline date.

ADMISSIONS-PERMISSION/VISITING STUDENTS

During the summer session, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities must obtain prior approval from their dean to take courses at UNCW. The University assumes no responsibility in determining a student's course selection when such credits are to be transferred elsewhere. Summer visitor applications and schedules are available by February of each year from the Office of Special Programs. Enrollment by permission from another institution in no way obligates the University to continue one's enrollment at UNCW after the expiration of the permission period. A student may not continue to attend as a permission/visitor student beyond two consecutive summer sessions. To apply for fall or spring semester visitor status, transfer requirements must be met.

ADMISSIONS-SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at UNCW if they meet the qualifications for participation in this program. Because of distance, this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer terms. Application deadline dates must be honored.

ADMISSIONS-INTERNATIONAL STUDENTS

The University of North Carolina at Wilmington welcomes interest and inquiry from international students. In addition to meeting regular freshman or transfer academic admission requirements, international students must present evidence of their ability to speak, read, and write the English language and to meet fully the financial obligations associated with their study at the University. Students from foreign countries are asked to present the results of the TOEFL examination (Test of English as a Foreign Language) as a part of their application for admission. A financial responsibility statement must also be submitted. All material for admission consideration must be in the Office of Admissions at least three (3) months prior to the date of registration for the entering semester or term. It is recommended that international students plan to begin their studies in a fall semester.

ADMISSIONS-SENIOR CITIZENS

Residents of North Carolina age 65 or older who meet applicable admission requirements may enroll tuition free on a space available basis. The availability of class space cannot be determined until after registration.

ADMISSIONS-AUDIT STUDENTS

Students who wish to take courses without receiving credit should apply to the Office of the Registrar before the semester registration date.

ADMISSIONS-GRADUATE STUDENTS

All inquiries concerning admission to graduate programs should be directed to the Office of Graduate Studies. Admissions requirements are stated in the Graduate Studies section.

NONDISCRIMINATION POLICY

UNCW is dedicated to equality of opportunity within its community. Accordingly, UNCW does not practice nor condone discrimination in any form against students, employees, or applicants on the grounds of race, color, national origin, religion, sex, age, handicap or veteran status. UNCW commits itself to positive action to secure equal opportunity regardless of those characteristics. For additional information, contact the Federal Compliance Officer.

SAFETY AND HEALTH PROGRAM

UNCW's safety program complies with the State Occupational Safety and Health Act of 1973.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the University.

FRESHMAN ADMISSION REQUIREMENTS

for

The University of North Carolina at Wilmington

The Fall 1988 Semester

The requirements for Freshman admission to The University of North Carolina at Wilmington for the Fall 1988 semester are:

(1) A diploma from an approved or accredited high school or a GED Certificate.

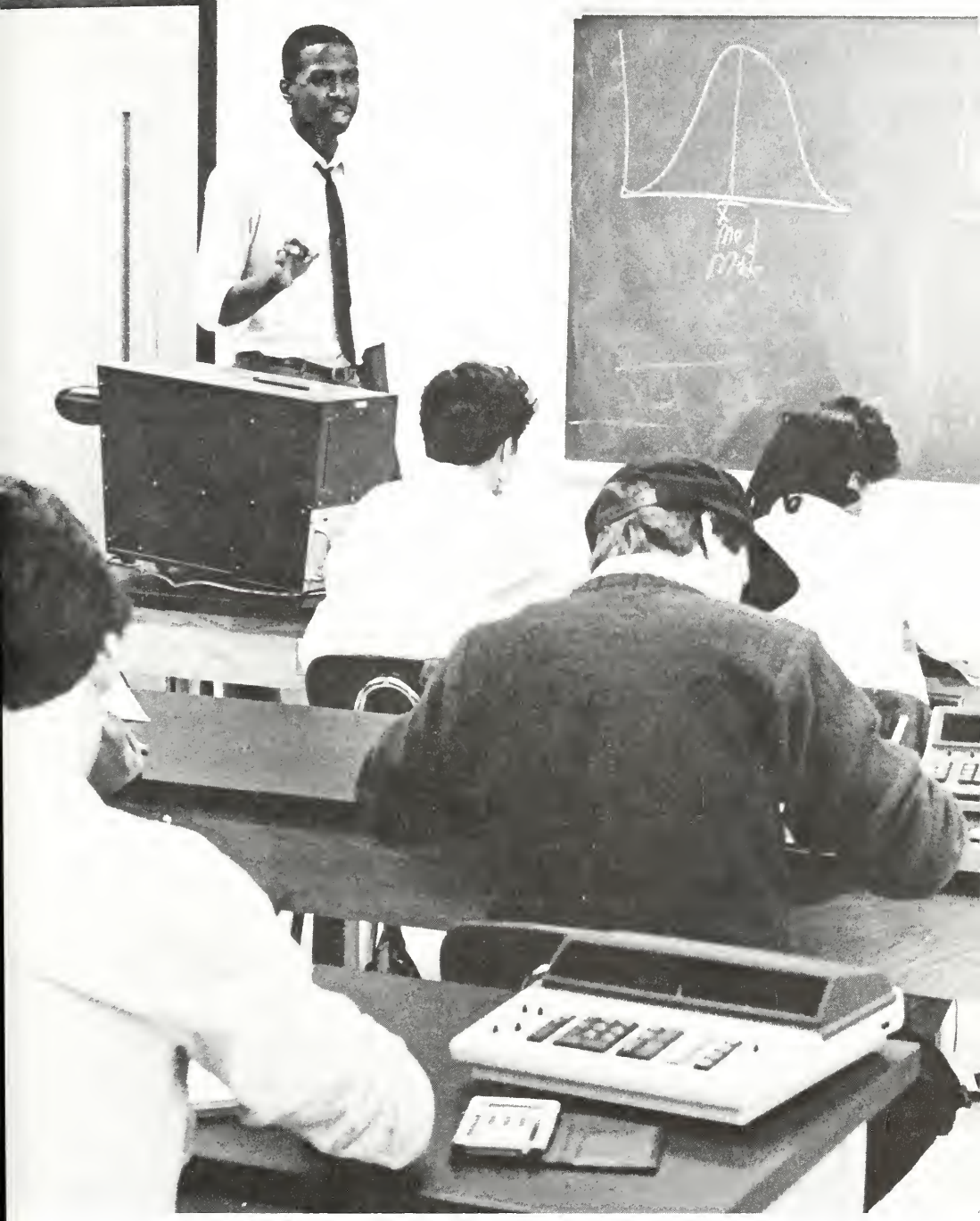
(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).

(3) An overall "C" average on all work attempted in grades 9-12.

(4) The following specific high school units:
4 units in college preparatory English
*2 units in one foreign language
3 units in mathematics (Algebra I, Algebra II and Geometry)
2 units in social studies (a unit in U.S. History and a unit in government and economics)
3 units in science (including a unit in a life or biological science and a unit in a physical science; at least one laboratory course)

Students are strongly encouraged to take a foreign language course unit and a mathematics course unit in the 12th grade.

*Students who meet all the minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they are graduated with the baccalaureate degree from UNCW.



EXPENSES

EXPENSES

The Board of Governors of The University reserves the right to change the charges for tuition fees and the room and board rate at any time without prior notice.

TUITION AND FEES

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Charges Per Semester

	In-State Students	Out-of-State Students*
Tuition	$175.00	$1,300.00
Fees	183.00	183.00
Total	$358.00	$1,483.00

Other fees:	
Application Fee (to accompany application, nonrefundable)	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Undergraduate students registering for 12 or more semester hours will be charged at the full-time rate. Students scheduling fewer than 12 semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
1 - 5	$ 84.50	$ 365.50
6 - 8	234.00	796.00
9 - 11	314.00	1,158.00

*See information on residency at the end of this section.

The privileges of students taking fewer than six hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $15.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full before a student may reenter at the beginning of any semester.

ON-CAMPUS LIVING

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,045.00
Room and Board:	21 meals	$1,070.00

Three meal plans are available for apartment students. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,132.50
Apartment and Board:	15 meals	$1,157.50
Apartment and Board:	21 meals	$1,182.50

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

Those interested in obtaining information should contact:

Housing Office
The University of North Carolina at Wilmington
601 South College Road
Wilmington, North Carolina 28403-3297

SUMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

REFUNDS-TUITION

A student who officially withdraws from the University on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid.

Students withdrawing from the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to *complete* withdrawals from UNCW. If you simply reduce your course load after the Drop/Add period, you will receive *NO* refund or reduction of fees whatsoever.

REFUNDS-FINANCIAL AID

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

REFUNDS-HOUSING

Housing arrangements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except as provided for below:

a. Agreements may be cancelled without forfeiture of deposit before May 19. Written notice of cancellation must be furnished to the Director of Housing.

b. Agreements may be cancelled with forfeiture of deposit between May 19 and the opening date for fall semester. Room rent for the fall semester will not be refunded after the opening date.

c. Agreements entered into for the spring semester only may be cancelled without forfeiture of deposit before December 1 and with forfeiture of deposit between December 1 and the opening date for spring semester. Room rent for the spring semester will not be refunded after the opening date. Written notice of cancellation must be furnished to the Director of Housing.

d. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

RESIDENCE STATUS FOR TUITION PURPOSES

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the instituion of that statement to be conditioned by the following:

Residence. To qualify as a resident for tuition purposes, a person must become a legal resident and remain a legal resident for at least 12 months immediately prior to classification. Thus, there is a distinction between legal residence and residence for tuition purposes. Furthermore, twelve months legal residence means more than simple abode in North Carolina. In particular it means maintaining a domicile (permanent home of indefinite duration) as opposed to "maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education." The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification, who must show his or her entitlement by the preponderance (the greater part) of the residentiary information.

Initiative. Being classified a resident for tuition purposes is contingent on the student's seeking such status and providing all information that the institution may require in making the determination.

Parents' Domicile. If an individual, irrespective of age, has living parent(s) or court-appointed guardian of the person, the domicile of such parent(s), or guardian is, prima facie, the domicile of the individual; but this prima facie evidence of the individual's domicile may or may not be sustained by other information. Further, nondomiciliary status of parents is not deemed prima facie evidence of the applicant child's status if the applicant has lived (though not necessarily legally resided) in North Carolina for the five years preceding enrollment or re-registration.

Effect of Marriage. Marriage alone does not prevent a person from becoming or continuing to be a resident for tuition purposes, nor does marriage in any circumstances insure that a person will become or continue to be a resident for tuition purposes. Marriage and the legal residence of one's spouse are, however, relevant information in determining residentiary intent. Furthermore, if both a husband and his wife are legal residents of North Carolina and if one of them has been a legal resident longer than the other, then the longer duration may be claimed by either spouse in meeting the twelve-month requirement for in-state tuition status.

Military Personnel. A North Carolinian who serves outside the State in the armed forces does not lose North Carolina domicile simply by reason of such service. And students from

the military may prove retention or establishment of residence by reference, as in other cases, to residentiary acts accompanied by residentiary intent.

Grace Period. If a person (1) has been a bona fide legal resident, (2) has consequently been classified a resident for tuition purposes, and (3) has subsequently lost North Carolina legal residence while enrolled at a public institution of higher education, that person may continue to enjoy the in-state tuition rate for a grace period of twelve months measured from the date on which North Carolina legal residence was lost. If the twelve months end during an academic term for which the person is enrolled at a State institution of higher education, the grace period extends, in addition, to the end of that term. The fact of marriage to one who continues domiciled outside North Carolina does not by itself cause loss of legal residence, marking the beginning of the grace period.

Minors. Minors (persons under 18 years of age) usually have the domicile of their parents, but certain special cases are recognized by the residence classification statute in determining residence for tuition purposes.

(a) If a minor's parents live apart, the minor's domicile is deemed to be North Carolina for the time period(s) that either parent, as a North Carolina legal resident, may claim and does claim the minor as a tax dependent, even if other law or judicial act assigns the minor's domicile outside North Carolina. A minor thus deemed to be a legal resident will not, upon achieving majority before enrolling at an institution of higher education, lose North Carolina legal residence if that person (1) upon becoming an adult "acts, to the extent that the person's degree of actual emancipation permits, in a manner consistent with bona fide legal residence in North Carolina" and (2) "begins enrollment at an institution of higher education not later than the fall academic term following completion of education prerequisite to admission at such institution."

(b) If a minor has lived for five or more consecutive years with relatives (other than parents) who are domiciled in North Carolina and if the relatives have functioned during this time as if they were personal guardians, the minor will be deemed a resident for tuition purposes for an enrolled term commencing immediately after at least five years in which these circumstances have existed. If under this consideration a minor is deemed to be a resident for tuition purposes immediately prior to his or her eighteenth birthday, that person on achieving majority will be deemed a legal resident of North Carolina of at least 12 months duration. This provision acts to confer in-state tuition status even in the fact of other provisions of law to the contrary; however, a person deemed a resident of 12 months duration pursuant to this provision continues to be a legal resident of the State only so long as he or she does not abandon North Carolina domicile.

Lost but Regained Domicile. If a student ceases enrollment at or graduates from an institution of higher education while classified a resident for tuition purposes and then both abandons and reacquires North Carolina domicile within a 12-month period, that person, if he or she continues to maintain the reacquired domicile into re-enrollment at an institution of higher education, may re-enroll at the in-state tuition rate without having to meet the usual 12-month durational requirement. However, any one person may receive the benefit of this provision only once.

Change of Status. A student admitted to initial enrollment in an institution (or permitted to re-enroll following an absence from the institutional program which involved a formal withdrawal from enrollment) must be classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual enrollment. A residence status classification once assigned (and finalized pursuant to any appeal properly taken) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic year.

Transfer Students. When a student transfers from one North Carolina public institution of higher education to another, he or she is treated as a new student by the institution to which he or she is transferring and must be assigned an initial residence status classification for tuition purposes.

The initial classification of undergraduate students as in-state or out-of-state residents for tuition purposes is made by the Admissions Office. Appeals for in-state status may be made to the campus appeals body, Out-of-State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available for inspection upon request in the Admissions Office and in the Student Affairs Office.

FINANCIAL AID

FINANCIAL AID

The UNCW Financial Aid Office administers a program of financial aid which seeks to meet the needs of all enrolled students. While the program provides for the recognition of talent and outstanding student achievement, the program strives primarily to assist students with demonstrated financial need. It is our aim that no student be denied the opportunity to enroll or continue his education because of financial circumstances. The operation of the program is based upon a concept of needs-analysis that expects a student's family to meet educational expenses as completely as possible. The difference between the full cost of attendance and the determined amount of family contribution constitutes our definition of financial need. It is this calculated need which determines the amount of assistance an applicant receives.

To apply for financial aid a student must complete a Financial Aid Form provided by the College Scholarship Service and an institutional Financial Aid Application. Both forms are available in the UNCW Financial Aid Office. Questions concerning the financial aid program at UNCW should be directed to the Financial Aid Office, The University of North Carolina at Wilmington, 601 S. College Rd., Wilmington, N.C. 28403–3297, (919) 395-3177.

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general **Minority Presence Grant Program,** black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

AMERICAN INDIAN STUDENT LEGISLATIVE GRANT

The General Assembly of North Carolina has provided funds for a number of grants to needy resident North Carolina Indian students. Eligibility is limited to degree students who maintain cultural identification as an American Indian through membership in an Indian tribe recognized by the State of North Carolina or by the federal government or through other tribal affiliation.

GRANTS

Pell Grants provide federal grants for students who show need for assistance in attending college. This grant covers the period required to complete the first undergraduate baccalaureate degree as long as the student maintains satisfactory progress. Students must be enrolled for at least six hours and must be in good academic standing. In addition, a student must be a U.S. citizen or in the United States for other than a temporary purpose. Awards are based on demonstrated financial need which is determined by a national formula applied uniformly to all applicants. The Pell Grant Special Condition Form is recommended for use by applicants whose financial circumstances have changed significantly since 1981. The death of a parent or spouse, the complete loss of employment or the divorce or separation of parents are examples of such changes. In such circumstances, the Special Condition Form should be filed instead of the Financial Aid Form.

The Supplemental Educational Opportunity Grant Program provides aid to students who show need for assistance in attending college. Supplemental grants range in value from $200 to $2,000 per year, with the cumulative maximum of $4,000. To be eligible for a grant at UNCW, a student must be enrolled for at least 12 hours and must be a citizen or permanent resident of the United States. The application and Financial Statement must demonstrate exceptional financial need.

The North Carolina Student Incentive Grant Program is administered by College Foundation, Inc., for legal residents of North Carolina accepted or enrolled full-time and in good standing in an undergraduate program of study. Students must demonstrate "substantial financial need" as determined through the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of American College Testing Program. Students should see that the completed Financial Statement is sent with the processing fee as soon after January 1 as possible, but not later than March 15; late filers will be considered if funds are available.

UNCW Grants provide needy and worthy students with awards which cover tuition costs. To be eligible for one of these grants a student must be enrolled for at least 12 hours and have at least a 2.0 grade point average. Competition for these grants, however, generally results in higher grade point requirements.

Athletic Grants-In-Aid are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the Director of Athletics.

The North Carolina National Guard Tuition Assistance Program is a state funded Tuition Assistance Program for active members of the North Carolina Guard. This program will pay the cost of tuition per academic year for a maximum of four years. For additional information contact:

Office of the Adjutant General
North Carolina National Guard
Attn.: AGRR
P.O. Drawer 26268
Raleigh, N.C. 27611
(919) 733-3770 – Ext. 175

GENERAL SCHOLARSHIPS

UNCW Scholarships are awarded to students for talent and outstanding achievement. These scholarships are equal to the cost of tuition and are awarded through the Financial Aid Office by various departments, organizations, and campus publications.

The Lucille Murchison Marvin Scholarship is awarded each year to two students at UNCW who have a grade point average of at least 3.0 and who demonstrate scholarship ability and financial need.

The Eliza Collins Scholarship is awarded yearly to several students who demonstrate scholastic ability and need.

The Henry Harrell, Sr., and Alma M. Harrell Scholarship is awarded annually to students who have a grade point average of 3.0 or better and have an exceptional financial need.

The C. M. and M. D. Suther Scholarship is awarded annually to deserving high school graduates who would not otherwise be able to attend college. The scholarship amount will be approximately $950.00 annually.

The Devereux Haigh Lippitt Scholarship is awarded annually to a North Carolina student based on academic achievement. This scholarship covers the in-state cost of tuition and fees and is given in memory of Mr. Devereux Haigh Lippitt by his family.

The Elizabeth Dudley Urquhart Memorial Scholarship Fund provides a tuition and fees scholarship to an academically talented student who demonstrates financial need. The recipient must have completed the last two years of high school in a New Hanover County Public school.

The Alumni Association Academic Scholarship Program provides annual, renewable in-state tuition and fees scholarships based on academic achievement and potential. Students must be classified as North Carolina residents for tuition purposes. Applications, secured from the UNCW Alumni Affairs Office, must be completed and returned to that office by March 15.

The Army ROTC Scholarship. The Department of Military Science annually awards a two and a three year Army Scholarship to a UNCW student majoring in Math or Science. The scholarship pays all tuition and fees, plus $100.00 a month for subsistence. The recipient must qualify academically and physically. Other scholarships are available through national competition. For information contact the chairman of the Military Science Department.

The Rotary Club of Wilmington provides an annual tuition and fees scholarship to an undergraduate applicant who demonstrates academic strength, good character traits, and financial need.

The Wilmington Business and Professional Women USA Scholarship of $1,000 is awarded annually to a female student who plans to pursue a business or professional career. Applicants must demonstrate financial need, academic achievement, and clearly stated educational goals. Applications may be obtained from the Financial Aid Office.

The Wilmington Woman's Club Scholarship is awarded to a New Hanover County high school graduate who demonstrates academic achievement and financial need. A recipient may continue to receive this scholarship if a 3.0 grade point average is maintained.

COLLEGE OF ARTS AND SCIENCES SCHOLARSHIPS

The Department of Biological Sciences annually awards three scholarships. The **Herbert Mintzes Memorial Award** is made to the rising sophomore with the highest standing in the sequence of introductory biology courses (BIO 205, 206, 207); the recipient is chosen by the course instructors. The **Dovie P. Bowden Scholarship** is awarded to a student of junior standing on the basis of scholarship and need; eligible students should contact the department chairman to apply. The **Franklin H. Allen Scholarship** is awarded to a rising senior on the basis of grade point average and other evidence of achievement; the recipient is chosen by a faculty committee.

The Hercofina Scholarship is awarded to a chemistry major at UNCW who has a high grade point average. Interested students should contact the Department of Chemical and Physical Sciences.

The INCO Scholarship is an annual scholarship awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairman of the Department of Chemical and Physical Sciences.

American Society for Qualified Control Scholarship. The Wilmington section of the American Society for Quality Control has established an academic scholarship for a rising senior majoring in math with a strong background in statistics or for a rising senior in the field of business. The amount of the award will be the equivalent of in-state tuition for two semesters. Interested applicants should contact the chairman of the Department of Mathematical Sciences.

The Helena R. Cheek Memorial Scholarship is awarded by the Department of Modern Languages to a student who demonstrates special ability in the area of foreign language study and overall academic excellence. This scholarship is given in memory of Helena R. Cheek by her family and friends.

The William F. Adcock, Jr., Music Scholarship is awarded to a student who plans to graduate from UNCW with an emphasis in music and who has no more than 36 hours to

complete for graduation. The award will be based upon overall excellence in music, above-average academic record and acceptable performance standards.

The J. Rupert Bryan Scholarship is awarded to a political science major with financial need. Candidates must be able to demonstrate creativity, curiosity, and academic worthiness.

The James E. L. Wade Scholarships in History and Political Science are awarded to high school seniors who have a B average or above on high school work, an interest in history or political science as a major, and financial need. For additional information, contact the appropriate department chairman.

The R and E Electronics Scholarship is an annual scholarship awarded primarily to a minority sophomore student in pre-engineering studies who graduated from a North Carolina high school. The scholarship is based on academic ability and financial need.

CAMERON SCHOOL OF BUSINESS SCHOLARSHIPS

The W. A. Corbett Scholarship is awarded annually to a junior or senior in the Cameron School of Business Administration with a grade point average of 3.0 or better who is planning a career in the field of business. For information and application forms, contact the Office of Financial Aid or the Dean of the Cameron School of Business Administration.

Scholarships available for students who have completed the sophomore year (58 semester hours) include:

The William S. Holland Scholarship for accounting majors, established in honor of William S. Holland, retired partner of Cherry, Bekaert and Holland, Certified Public Accountants, and a member of the first graduating class of Wilmington College, is awarded annually. For information and application forms, contact the chairman of the Department of Accountancy.

The Cape Fear Traffic Club Scholarship, established for students studying in the field of marketing with particular emphasis on transportation/distribution, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The Lower Cape Fear Personnel Association Scholarship, established for students planning to concentrate in the study of management, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The Sales and Marketing Executives International Association (Cape Fear Chapter) Scholarship, established for students concentrating in the study of marketing, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

SCHOOL OF EDUCATION SCHOLARSHIPS

Ann Durant Walker Scholarship Award—The Alpha Psi Chapter of Alpha Delta Kappa awards a scholarship to a junior or senior majoring in Special Education. The scholarship is given in memory of Ann Durant Walker who helped develop the Special Education Program in New Hanover County.

The Sue McCall Boone Scholarship for education majors was established to provide a scholarship for a New Hanover County student who demonstrates a financial need at UNCW. The scholarship is named in honor of Miss Sue Boone, New Hanover educator, who contributed over 50 years of service in the community. The scholarship is awarded to one student biennially in the amount of tuition.

SCHOOL OF NURSING SCHOLARSHIPS

The Medical Auxiliary Scholarship is awarded to a second year nursing student, second- or third-year medical technology student, or junior or senior pre-medical student who is a resident of New Hanover, Pender, or Brunswick County and who demonstrates financial need and scholastic ability.

The Babies Hospital Foundation Nursing Scholarship was established to assist four nursing students with their tuition, fees, books, uniforms, and insurance. Each student must be a North Carolina resident and must be academically qualified.

The Forty and Eight Nursing Scholarship established by Voiture 245, the Forty and Eight of American Legionnaires, in joint memory of Voyageur Militaire John H. McInnis and Miss Dorothy Dixon, is open to nursing students who graduated from high school in New Hanover, Pender, or Brunswick County.

The Ministering Circle of Wilmington awards scholarships on the basis of scholastic ability, financial need, and recommendation, to students accepted in the Nursing program at UNCW.

The Juanita Borneman Memorial Scholarship, awarded to a student from rural North Carolina, approximates the cost of tuition.

The Billie Burney Memorial Scholarship, started by family and friends of the late Billie Burney, is awarded annually as a tuition scholarship to a student in the field of nursing.

The Louise Ogden Wright Nursing Scholarship is a $500 scholarship given annually by Mrs. Andrew Harriss in memory of her mother. The recipient is selected on the basis of financial need, academic record, and professed intention to pursue nursing as a career.

EMPLOYMENT

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least 12 hours and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

The Institutional Work Program, also known as the Work Assistant Program, makes funds available for campus jobs for students. These funds are allocated to departments with the selection of student work assistants controlled by those departments. Students receiving any type of financial aid must receive clearance through the Financial Aid Office before accepting work positions under this program. Students interested in the program should direct inquiries to the department in which they prefer to work.

Off-Campus Employment is coordinated by the Career Planning and Placement Center. The office publicizes specific job openings, makes individual referrals, announces recruiting visits, and keeps on file company literature, information about public and private schools, and state and federal government opportunities. Students interested in using the services of this office should register with the Career Planning and Placement Center to establish a credentials file.

LOANS

The National Direct Student Loan Program, a campus based program, provides needy students with long-term, low interest loans for educational expenses. Under this program, students borrow money to finance their college education and repay the loan after graduation. Repayment begins six months after graduation or withdrawal from school, and the borrower may take up to ten years to repay the loan. The interest rate is four percent and

does not begin accruing until six months after graduation or withdrawal from school. All or part of the loan can be cancelled by teaching or military service. To be eligible for an NDSL loan at UNCW, a student must be enrolled for at least 12 hours and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

The North Carolina Insured Loan Program provides students who are North Carolina residents with long-term, low-interest loans. Under this program, the student borrows from College Foundation, Inc., and repays the loan after graduation or withdrawal from school. The interest rate is nine percent and begins to accrue after graduation or withdrawal from school. To qualify, an applicant must be from a family with an adjusted family income of $30,000 or less. Applicants from families with incomes above this level can qualify for loans only if they show financial need. Application for the North Carolina Insured Loan should be made directly to College Foundation, Inc., 1307 Glenwood Avenue, Raleigh, N.C. 27605. The maximum amount that a dependent undergraduate student may borrow is $2500 per academic year; and independent undergraduate student may borrow $3000 per academic year. To be eligible for this program, a student must be enrolled for at least six semester hours.

The Federally Insured Student Loan Program provides assistance to out-of-state students who may be eligible to borrow long-term, low-interest loans through approved lenders in their home states. This program is essentially the same as the N.C. Insured Loan Program. Addresses for these agencies may be obtained from the Financial Aid Office.

The North Carolina Prospective Teachers Scholarship-Loan Program provides assistance to prospective North Carolina teachers. The program provides a $1500-per-year loan which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction. Inquiries regarding the program should be directed to N.C. Prospective Teachers Scholarship Program, State Department of Public Instruction, Raleigh, N.C. 27611. To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The Student Loan Program, formerly North Carolina Educational Loans for Medical-Related Studies, provides financial assistance to North Carolina residents who demonstrate need as determined by the Board for Need-Based Medical Student Loans. Loans are available for study in the medical fields, mathematics and science programs that lead to a degree. Additional information can be obtained by writing to

The Student Loan Program
116 West Jones Street, Room 279
Administration Building, Suite 279
Raleigh, North Carolina 27611

ACADEMIC CONSIDERATIONS

Time Limitation Policy for Determining Eligibility for Financial Aid

A student is allowed up to two additional years beyond the traditional four-year track to complete the undergraduate degree. Any semester in which he or she registers and does not withdraw within the formal drop-add period will be counted, regardless of student's financial status.

Additionally, a student is determined to be no longer eligible for Federal Pell Grant Program once the required hours for graduation have been met. This is true regardless of whether or not the student applies for graduation.

Satisfactory Progress

To be eligible to receive or to remain eligible to receive financial aid funds, undergraduates must maintain "satisfactory progress" in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of the regular academic year.

Standard one requires that full-time students must demonstrate successful completion of 20 hours for the academic year (approximately one-sixth of total hours required for graduation); less than full-time students must complete 10 hours (approximately one-twelfth of total hours required for graduation). In the case of a student who changes his or her enrollment status from fall to spring semester, the hours which must be completed will be averaged. **Standard two** involves a qualitative measurement, as shown in the following chart establishing grade standards for hours attempted.

DEGREE STUDENTS		UNCLASSIFIED STUDENTS	
Hours Attempted	**GPA**	**Hours Attempted**	**GPA**
6 - 26	1.2	1 - 6	1.2
27 - 58	1.5	7 - 12	1.5
59 - 88	1.8	13 - 18	1.8
89 or more	2.0	19 - 27	2.0

NOTE: Students enrolled under the three-year rule will be required to meet a minimum 2.0 GPA each term and meet the quantitative measurement of standard one.

The standards of progress outlined for financial aid recipients are not applicable for purposes of continued enrollment, since such determinations will be made by the University in accordance with institutional policy.

A preliminary review will be made at mid-year (following fall semester) to identify those students not meeting the required academic standards. Full-time students not successfully completing at least 10 hours, and less-than-full-time students not completing at least 5 hours will be determined deficient. Students not meeting the academic requirements outlined on the retention chart will be issued a warning. Financial aid recipients who fail to meet both standards at the end of the spring semester will lose their continuing eligibility as aid candidates for subsequent periods of enrollment.

Eligibility lost due to shortage of hours can be regained by successfully completing at least 10 hours plus the number short (for full-time students) or at least 5 hours plus the number short (for less than full-time students) during the regular term. Eligibility lost due to failure to meet academic requirements can be regained by bringing the G.P.A. up to the standards outlined on the retention chart.

Students terminated from aid because of failure to meet satisfactory progress standards may appeal when mitigating circumstances exist. A student who through appropriate administrative review of mitigating circumstances is authorized to continue with his or her studies on a conditional basis is considered to meet the requirements of satisfactory progress.

Transfer Students

Each newly-enrolling student, whether freshman or transfer, is initially assumed to be making satisfactory progress. Additionally, the number of hours accepted as transfer hours will be used to place the student within the time frame allowed to complete the undergraduate degree.

Veterans Services

Veterans Services are administered under the umbrella of Student Financial Aid at UNCW. Services provided include peer and professional counseling, remedial and tutorial services, and certification for qualifying veterans and their dependents. The primary concern of Veterans Services is to assist students, monitor their course work, and insure that individuals utilizing veterans benefits keep in line with their prescribed curriculum and successfully complete their desired educational objective.

All veterans and dependents receiving V.A. Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule. Any change in the veteran's course of study should be cleared with the veteran's counselor in the Financial Aid Office to insure continuation of benefits. Transfer students are reminded that the office must have copies of all transcripts before certification can be made to the Veterans Administration for payment.

In determining eligibility for V.A. educational funds, the chart on page 40 will apply to all veterans and dependents using G.I. Benefits for their training at this University. Any full-time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his or her quality point standing.

STUDENT AFFAIRS

STUDENT AFFAIRS

The basic mission of the Division of Student Affairs is to encourage student use of personal, institutional, community, and other resources toward the goals of individual development, self-fulfillment, and a responsible citizenship. Its programs and services are directed toward assisting students in their educational and personal development.

DEAN OF STUDENTS OFFICE

The Dean of Students Office serves as the primary focal point for addressing student needs, issues and concerns, and serves as a resource and referral office for all faculty, staff and students. Acting in an advocacy role, the Dean and Associate Dean of Students represent the student perspective to the University community. This office works with all segments of the University to help students develop through opportunities, advice and assistance. Within the Student Affairs Division, the Dean of Students Office provides consultation, new program development and assistance to the Vice Chancellor with special projects. Specifically, the office coordinates orientation for freshmen and transfer students, advises international and non-traditional students, publishes the *Student Handbook* and *The Code of Student Life*, and coordinates the student judicial system and the official withdrawal process from the University for undergraduate students. Additionally, the Dean of Students Office coordinates programs and policy on rape prevention and assistance, alcohol education, and implements developmental programs to meet assessed and perceived student needs. The Dean of Students Office also provides supervision for the Residence Life Program.

STUDENT DEVELOPMENT CENTER

The Student Development Center is a campus resource to help students build satisfying and successful college experiences. The services of the Center include counseling, learning assistance, and academic and career decision-making. The Center also administers national college and graduate school admissions tests such as the SAT, GRE, GMAT, and NTE as well as the College Level Examination Program (CLEP). The Center works with disabled students to accommodate individual needs, and provides a variety of services including counseling, equipment, tutoring, and advocacy needs. Professional counselors are available to work with students individually or in small groups and assist in resolving personal, educational, and career concerns. There is no charge for counseling services and all contacts with students are confidential.

CAREER PLANNING AND PLACEMENT CENTER

The Career Planning and Placement Center assists students and alumni of UNCW in developing career plans through individual counseling, by conducting workshops, seminars and by providing current occupational and career planning materials and information. Individuals are especially encouraged to utilize this service early in their academic career when decisions concerning majors and career goals are being made. Information and counseling on careers, specific job requirements, employers, job search strategies and graduate school programs are available.

Additionally, the office publicizes specific job openings, makes individual referrals, schedules recruiting visits and keeps on file company literature, information about public and private schools, and private sector, local, state and federal government opportunities. The office and career library are located on the first floor of the University Union, Room 106.

Listings of summer work and part-time employment during the academic year are available through this service. Individual assistance is provided to those with employment needs.

Students interested in internships and career relevant work experience are also invited to visit the Career Planning and Placement Center.

A variety of workshops, informational resources and individualized services are available to assist students in preparing to enter the job market. Regularly scheduled workshops on resume writing, job interview techniques, and job search skills are offered throughout the year. The career library contains a number of career and job search related volumes as well as company literature.

Seniors are urged to register with the Career Planning and Placement Center early in their final year or sooner in order to establish a credentials file and to avail themselves of the various services of the office.

STUDENT HOUSING

By fall 1985, the University will have residence hall facilities for approximately 578 men and 578 women in five modern, conveniently located residence halls. In addition, 400 spaces are available in 13 apartment buildings. All rooms are air-conditioned and furnished, and laundry facilities are available. Residence hall students are required to take their meals in the University cafeteria under a five-day or seven-day plan. Students living in the apartments are required to take a limited meal plan.

RESIDENCE LIFE PROGRAM

The Residence Life Office, located in the lobby of Galloway Hall, is responsible for the supervision of all students who reside in the residence halls and the apartment buildings. The basic purpose of the Residence Life Program at UNCW is to create a psychological environment conducive to academic and personal growth and to provide developmental learning opportunities through advising and programming.

FOOD SERVICE

The University operates a modern, air-conditioned cafeteria building. Short-order food service is available in the University Snack Bar located in the University Union. Service is on a cash basis for non-boarding students.

STUDENT HEALTH SERVICE

The Student Health Service (SHS) located in the main lobby of Graham Hall provides diagnosis and treatment of acute and general medical problems. Students taking 6 or more hours of courses per semester are eligible for this service. The SHS is staffed by a nurse practitioner, a physician assistant, a nurse, and a medical assistant. SHS hours are 8:30 a.m. to 5 p.m., Monday through Friday. After 5 p.m. during the week and all weekend, a Wilmington Health Associates physician is on call for medical emergencies. The scope of SHS services include education in self care of certain illnesses, allergy injections, birth control information and examinations, determinations of sexually transmitted diseases, assistance to victims of sexual assault, counseling to determine appropriate referrals, assistance with drug or smoking dependence, and weight related problems. A health education coordinator is available to assist students, faculty, and staff with programming in the area of wellness.

STUDENT HEALTH INSURANCE

It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents or hospitalization) under their family health and accident insurance plan contact the Dean of Students Office for information relative to the student health insurance plan offered at a nominal cost through the University.

RELEASE OF "DIRECTORY INFORMATION"

The University of North Carolina at Wilmington has routinely made public certain information about its students. Typically, UNCW releases the names of students who are selected by the various honorary societies, receive scholarships, make the Dean's List, hold offices, or are members of athletic teams. The annual commencement program publishes the names of persons who have received degrees from UNCW during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following information: the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The University will make public information about each student limited to these categories in ways such as those described above. Of course, information from all these categories is not made public in every listing.

Students who do not wish to have any or all of such "directory information" made public without their prior consent must notify the Office of the Registrar of this fact in a signed and dated statement specifying items not to be published. This notice must be received by the Office of the Registrar by the end of the registration period for the semester or session of first enrollment or, after an absence, of re-enrollment and by the end of each fall registration thereafter.

STUDENT CONDUCT

The filing of an *application of admission* shall be construed as both an evidence and a pledge that the applicant accepts the standards and regulations of The University of North Carolina at Wilmington and agrees to abide by them. Each student, by the act of registering, obligates himself to obey all rules and regulations of the University as stated in the student handbook, *The Code of Student Life,* the University catalogue and other University publications. The University reserves the right to ask for the withdrawal of any student who refuses to adhere to the standards of the institution.

STATEMENT OF UNIVERSITY POLICIES, PROCEDURES, AND DISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL PROCESS

ADOPTED BY THE BOARD OF TRUSTEES OCTOBER 27, 1970

Section 5-1. Policies Relating to Disruptive Conduct

The University of North Carolina has long honored the right of free discussion and expression, peaceful picketing and demonstrations, the right to petition and peaceably to assemble. That these rights are a part of the fabric of this institution is not questioned. They must remain secure. It is equally clear, however, that in a community of learning willfull disruption of the educational process, destruction of property, and interference with the rights of other members of the community cannot be tolerated. Accordingly, it shall be the policy of the University to deal with any such disruption, destruction or interference promptly and effectively, but also fairly and impartially without regard to race, religion, sex or political beliefs.

Section 5-2. Definition of Disruptive Conduct

(a) Any faculty member (the term "faculty member," wherever used in this Chapter V, shall include regular faculty members, full-time instructors, lecturers, and all other persons exempt from the North Carolina State Personnel System (Chapter 126 of the General Statutes as amended) who receive compensation for teaching, or other instructional functions, or research at the University, any graduate student engaged in the instructional program, or any student who, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, engages, or incites others to engage, in individual or collective conduct which destroys or significantly damages any University property, or which impairs or threatens impairment of the physical well being of any member of the University community or which because of its violent, forceful, threatening or intimidating nature or because it restrains freedom or lawful movement, otherwise prevents any member of the University community from conducting his normal activities within the University, shall be subject to prompt and appropriate disciplinary action, which may include suspension, expulsion, discharge or dismissal from the University.

The following, while not intended to be exclusive, illustrate the offenses encompassed herein, when done for the purpose of obstructing or disrupting any normal operation or function of the University or any of its component institutions: (1) occupation of any University building or part thereof with intent to deprive others of its normal use; (2) blocking the entrance or exit of any University building or corridor or room therein with intent to deprive others of lawful access to or from, or use of, said building or corridor or room; (3) setting fire to or by any other means destroying or substantially damaging any University building or property, or the property of others on University premises; (4) any possession or display of, or attempt or threat to use, for any unlawful purpose, any weapon, dangerous instrument, explosive, or inflammable material in any University building or on any University campus; (5) prevention of, or attempt to prevent by physical act, the attending, convening, continuation or orderly conduct of any University class or activity or of any lawful meeting or assembly in any University building or on any University campus, and (6) blocking normal pedestrian or vehicular traffic on or into any University campus.

(b) Any person engaged in the instructional program who fails or refuses to carry out validly assigned duties, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, shall be subject to prompt and appropriate disciplinary action under this Chapter V if (but only if) his status is such that he is not subject to the provisions of Section 4-3 of Chapter IV.

Section 5-3. Responsibilities of the Chancellor

(a) When the Chancellor has cause to believe that any of the provisions of this Chapter V have been violated, he shall forthwith investigate the occurrence, and upon identification of the parties involved shall promptly determine whether any charge is to be made with respect thereto.

(b) If he decides that a charge is to be made, he shall, within thirty (30) days after he has information as to the identity of the alleged perpetrator of the offense but in no event more than twelve (12) months after the occurrence of the alleged offense, (i) refer the case to the appropriate existing University judicial body, or (ii) refer the matter to a Hearing Committee drawn from a previously selected Hearing Panel which, under this option, is requried to implement action for violation of Section 5-2 (a) or (b) of this Chapter. If the case is referred to an existing University judicial body under (i) above, the procedural rules of that body shall be followed, and subsections (c) through (f) below shall not be applicable. If the

matter is referred to a Hearing Committee under (ii) above, the procedural rules prescribed in subsection (c) through (f) shall be followed.

(c) The accused shall be given written notice by personal service or registered mail, return receipt requested, stating:

(1) The specific violations of this Chapter V with which the accused is charged.

(2) The designated time and place of the hearing on the charge by the Hearing Committee, which time shall not be earlier than seven (7) nor later than ten (10) days following receipt of the notice.

(3) That the accused shall be entitled to the presumption of innocence until found guility, the right to retain counsel, the right to present the testimony of witness and other evidence, the right to cross-examine all witnesses against him, the right to examine all documents and demonstrative evidence adverse to him, and the right to a transcript of the proceedings of the hearing.

(d) The Hearing committee shall determine the guilt or innocence of the accused. If the person charged is found guilty, the Hearing Committee shall recommend to the Chancellor such discipline as said body determines to be appropriate. After considering such recommendation the Chancellor shall prescribe such discipline as he deems proper. In any event, whether the person is found guilty or not guilty, a written report shall be made by the Chancellor to the President within ten (10) days.

(e) Any person found guilty shall have ten (10) days after notice of such finding in which to appeal to the President of the University. Such an appeal if taken shall be upon the grounds set forth in Section 5.5

(f) Any accused person who, without good cause, shall fail to appear at the time and place fixed for the hearing of his case by the Hearing Committee shall be suspended indefinitely or discharged from University employment.

(g) The Chancellor, unless so ordered or otherwise prevented by courts, shall not be precluded from carrying out his duties under this Chapter V by reason of any pending action in any State or Federal court. Should a delay occur in prosecuting the charge against the accused because the accused or witnesses that may be necessary to a determination of the charge are involved in State or Federal court action, the time limitations set forth in this Section 5-3 shall not apply.

(h) Conviction in any State or Federal court shall not preclude the University or any of its officers from exercising disciplinary action in any offense referred to in this Chapter V.

(i) Nothing contained in this Chapter V shall preclude the President or the Chancellor from taking any other steps, including injunctive relief or other legal action, which he may deem advisable to protect the best interests of the University.

Section 5-4. Aggravated Acts or Threatened Repetition of Acts

(a) The Chancellor of each of the component institutions of the University shall appoint an Emergency Consultative Panel which shall be composed of not less than three (3) nor more than five (5) faculty members and not less than three (3) nor more than five (5) students who shall be available to advise with the Chancellor in any emergency. No member of such Panel shall serve for more than one (1) year unless he be reappointed by the Chancellor. The Chancellor may make appointments, either temporary or for a full year, to fill any vacancies which may exist on the Panel.

(b) If, in the judgment of the Chancellor, there is clear and convincing evidence that a person has committed any of the acts prohibited under this Chapter V which, because of the aggravated character or probable repetition of such act or acts, necessitates immediate action to protect the University from substantial interference with any of its orderly opera-

tions or functions, or to prevent threats to or acts which endanger life or property, the Chancellor, with the concurrence as hereinafter provided of the Emergency Consultative Panel established pursuant to (a) above, may forthwith suspend such person from the University and bar him from the University campus; provided, however, that in the event of such suspension the person suspended shall be given written notice of the reason for his suspension, either personally or by registered mail addressed to his last known addresses, and shall be afforded a prompt hearing, which, if requested, shall be commenced within ten (10) days of the suspension. Except for purposes of attending personally any hearings conducted under this Chapter V, the bar against the appearance of the accused on the University campus shall remain in effect until final judgment has been rendered in his case and all appellant proceedings have been concluded, unless such restriction is earlier lifted by written notice from the Chancellor.

(c) A quorum of the Emergency Consultative Panel provided for in (a) above shall consist of not less than four (4) of its members, and the required concurrence shall have been obtained if a majority of such quorum shall indicate their concurrence. The Chancellor shall meet personally with members of such Panel at the time he seeks concurrence, if it is feasible to do so. However, if the circumstances are such that the Cancellor deems it not to be feasible to personally assemble such members, then he may communicate with them or the required number of them individually by telephone or by such other means as he may choose to employ, in which event he may proceed as provided in (b) above after the required majority of such members have communicated their concurrence to him.

(d) In the Chancellor's absence or inability to act, the President may exercise the powers of the Chancellor specified in this Section 5-4 in the same manner and to the same extent as could the Chancellor but for such absence or inability to act.

Section 5-5. Right of Appeal

Any person found guilty of violating the provisions of this Chapter V by the Hearing Committee referred to in Section 5-3 shall have the right to appeal the finding and the discipline imposed upon him to the President of the University. Any such appeal shall be in writing, shall be based solely upon the record, and shall be limited to one or more of the following grounds:

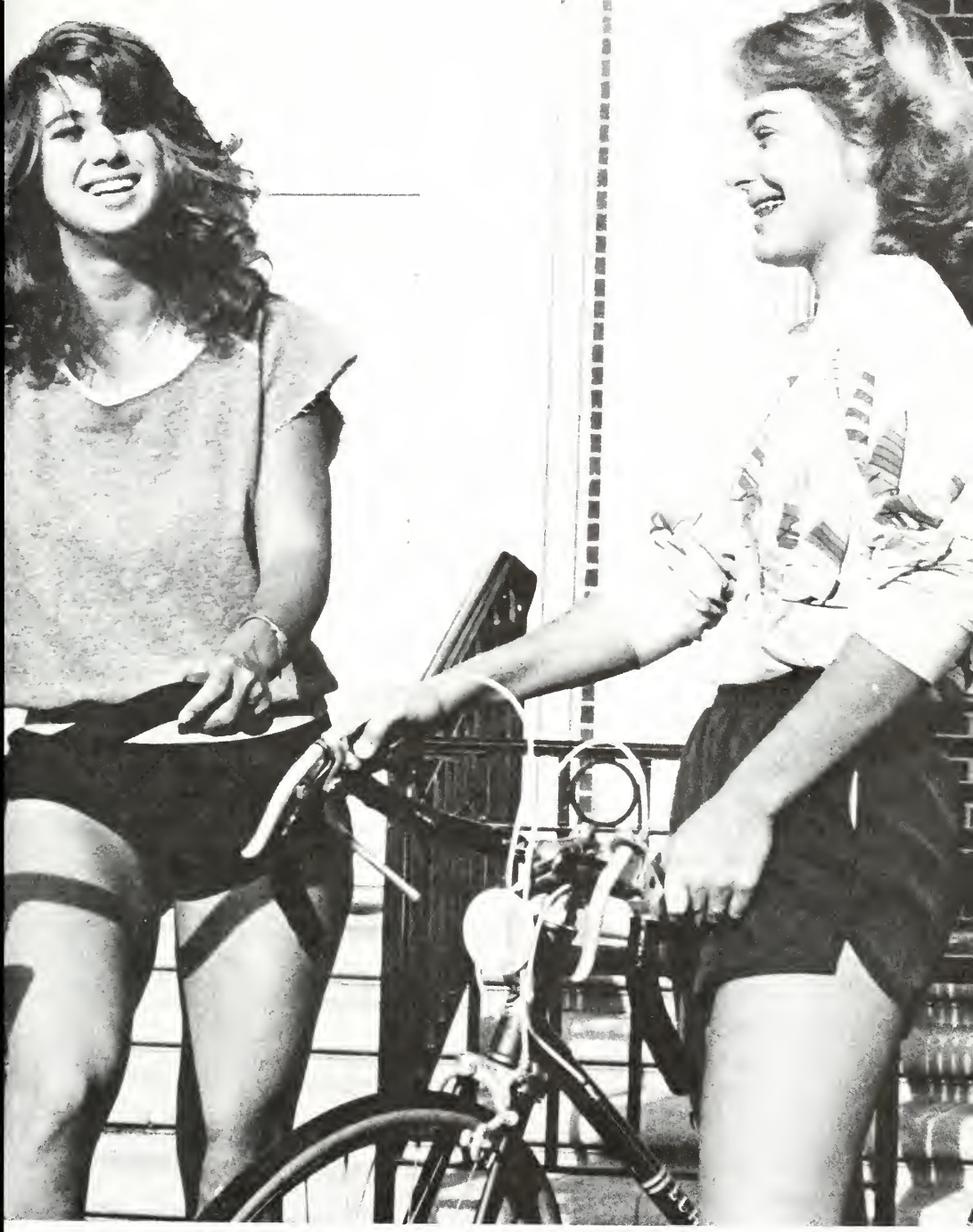
(1) That the finding is not supported by substantial evidence;

(2) That a fair hearing was not accorded the accused; or

(3) That the discipline imposed was excessive or inappropriate. It shall be the responsibility of the President to make prompt disposition of all such appeals, and his decision shall be rendered within thirty (30) days after receipt of the complete record on appeal.

Section 5-6. No Amnesty

No administrative official, faculty member, or student of the University shall have authority to grant amnesty or to make any promise as to prosecution or non-prosecution in any court, State or Federal, or before any student, faculty, administrative, or Trustee committee to any person charged with or suspected of violating Section 5-2 (a) or (b) of these Bylaws.



STUDENT LIFE

STUDENT LIFE

UNIVERSITY UNION

Student life is enriched at the University of North Carolina at Wilmington by a broad spectrum of activities, most of which occur in or around the University Union. The Union is a 53,000 square-foot facility which opened its doors on March 21, 1983. It houses student organization offices, conference rooms, recreation and games facilities, lounges, study areas, snack bar, rental lockers, the University Information Center, U.S. Post Office, Wachovia Banking Machine, and an assortment of student services. With the guidance of the Office of Student Activities, students are provided opportunities to plan, execute, attend, and evaluate a wide variety of programs and activities. With the belief that education is not bound to the classroom, it is the University Union's goal to educate, entertain and enlighten the University community, while providing a laboratory for student growth and an arena for development of cultural, social and recreational awareness.

UNIVERSITY INFORMATION CENTER

The Information Center, located on the first floor of the University Union, provides a variety of information on campus, student and community activities.

POSTAL SERVICES

A U.S. Post Office, which provides all postal services, is in the University Union. UNCW provides each student with a post office box where all mail (except grades) is delivered. Boxes are located on the first floor of the Union.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the University is the Student Government Association. Officers and at-large senators are elected by the student body, and other senators by classes within the student body.

The association is a democratic organization, permitting expression of student opinion, working for the best interests of the University and upholding a high standard of morals and conduct. It is responsible for the disbursement of half of the student activity fee. This money supports the Student Government Association in its objectives and campus activities. The association is a member of the North Carolina Association of Student Governments.

UNIVERSITY PROGRAM BOARD

The University Program Board coordinates the various student-produced events on campus. It provides a diversified schedule of programs, activities, and events that promote and provide opportunities for educational, social, recreational, and cultural growth for students and the campus community. The UPB is comprised of the following committees: Fine Arts/Lecture, Concert, Coffeehouse, Minority Arts, and Special Events. The board is a member of the National Association for Campus Activities.

STUDENT ORGANIZATIONS

A variety of social, academic, and service organizations enhance student life at UNCW. National sororities and fraternities are established on the campus to recognize students for their leadership and service activities. Several departments in the University have locally and nationally organized groups to stimulate interest in specific areas and to develop professional attitudes. Students are encouraged to contact the Office of Student Activities for specific information relative to a student organization.

PUBLICATIONS

Students are involved in the writing and editing of several University publications.

The Seahawk, the student newspaper, is published weekly. Its staff is composed entirely of students.

The Fledgling, the student-produced yearbook, contains the usual features of a college annual.

The Atlantis, a literary magazine, is published by students each semester.

The Channel Marker is a calendar published yearly to provide information regarding the dates and times of campus events and activities.

The UNCW Student Handbook and *The Code of Student Life* are the primary sources of information regarding University regulations and campus life.

The Foram, a student journal, presents current undergraduate research in the sciences.

ATHLETICS

The University holds membership in the National Collegiate Athletic Association and the National Association of Intercollegiate Athletics.

Varsity intercollegiate teams are fielded for men in basketball, cross country, baseball, golf, soccer, tennis, swimming, and water polo. Varsity intercollegiate teams for women are fielded in basketball, softball, tennis, volleyball, swimming, golf, and cross country. Various club sports are also available.

In addition, an intramural sports program is provided for the student body. The program is based on both a competitive and recreational basis, and participation is voluntary.

PERFORMING ENSEMBLES IN MUSIC

Membership is open to any student who has had instrumental or vocal experience, with the approval of the director of the particular ensemble. Any participant may earn credit. Participation by nonmusic majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

Instrumental Ensembles

The UNCW Wind Ensemble is organized each semester to provide instrumental music experience for those students who desire it. The Wind Ensemble presents at least two concerts per year.

The UNCW Jazz Ensembles perform several concerts on and off campus each semester and perform an annual guest artist spring concert. Development of performance in the jazz idiom is stressed. These groups are open to any student who has had instrumental experience and the approval of the instructor. Auditions for each group are held at the beginning of each semester.

The Wilmington Symphony Orchestra, Inc., rehearses on campus and UNCW students may enroll and receive credit for participating in this group.

Faculty, student and senior recitals are presented free of charge and are open to the public as well as to all students.

The music division also maintains an Electronic Music Studio.

Vocal Ensembles

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the University, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit.

The University Concert Choir and small ensemble, The Chamber Singers, regularly provide music for University functions, appear on radio and television, and act as ambassadors from the University at a wide spectrum of community functions.

The UNCW Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama division.

THE UNIVERSITY THEATRE

The University Theatre is a student-oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potentials of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all University personnel and community residents.

UNIVERSITY READERS THEATRE

The University Readers Theatre provides students with an opportunity to participate in both the performance and technical production of a readers theatre script. Students attend open auditions and may take part in the reading, publicity, lighting, set design and managing of the show.

One major production is usually presented each semester. During semesters when the readers theatre course is offered, class members of that course will comprise the University Readers Theatre troupe. Interested students may inquire further at the Creative Arts Department.

FORENSICS TEAM

The University Forensics Team participates in a number of tournaments each year in addition to hosting the annual Blockade Runner Invitational Tournament on the UNCW campus. Students gain experience in public speaking, interpretation, research and argumentation. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of paintings, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. Student art is often featured. All exhibitions are open to the public without charge.

HONOR SOCIETIES AND AWARDS

THE SOCRATIC SOCIETY

The Socratic Society is an honorary scholastic society formed in 1968 to give special recognition to seniors of outstanding academic accomplishment. It is sponsored by faculty members who belong to the scholastic honorary fraternity Phi Beta Kappa.

Graduating seniors who have completed a minimum of 60 semester hours in the humanities and have attained an overall quality point average of 3.5 may be recommended for election to the society by the faculty of the area in which they are concentrating.

PHI ETA SIGMA NATIONAL HONOR SOCIETY

Phi Eta Sigma is a national college scholastic honor society for freshmen. A member of the Association of College Honor Societies, it was founded at the University of Illinois on March 22, 1923. The University of North Carolina at Wilmington Chapter of Phi Eta Sigma was chartered on March 17, 1979.

The goal of Phi Eta Sigma is to encourage and reward high scholastic attainment among freshmen. At the close of their first academic year freshmen are eligible for membership if they have a cumulative grade-point average of 3.5 or better with no grade lower than "C" on thirty hours or more course work at UNCW.

THE HONOR SOCIETY OF PHI KAPPA PHI

Phi Kappa Phi is an honor society recognizing good character and superior scholarship in all academic disciplines. A member of the Association of College Honor Societies, it was founded at the University of Maine at Orono in 1897. Chapter Number 222 at The University of North Carolina at Wilmington was chartered on May 1, 1980. Seniors and second semester juniors are elected to membership based on class standing and grade point average.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his or her years at the University. The medal is presented each year at commencement.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of The University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in the graduating class.

ADRIAN D. HURST AWARD

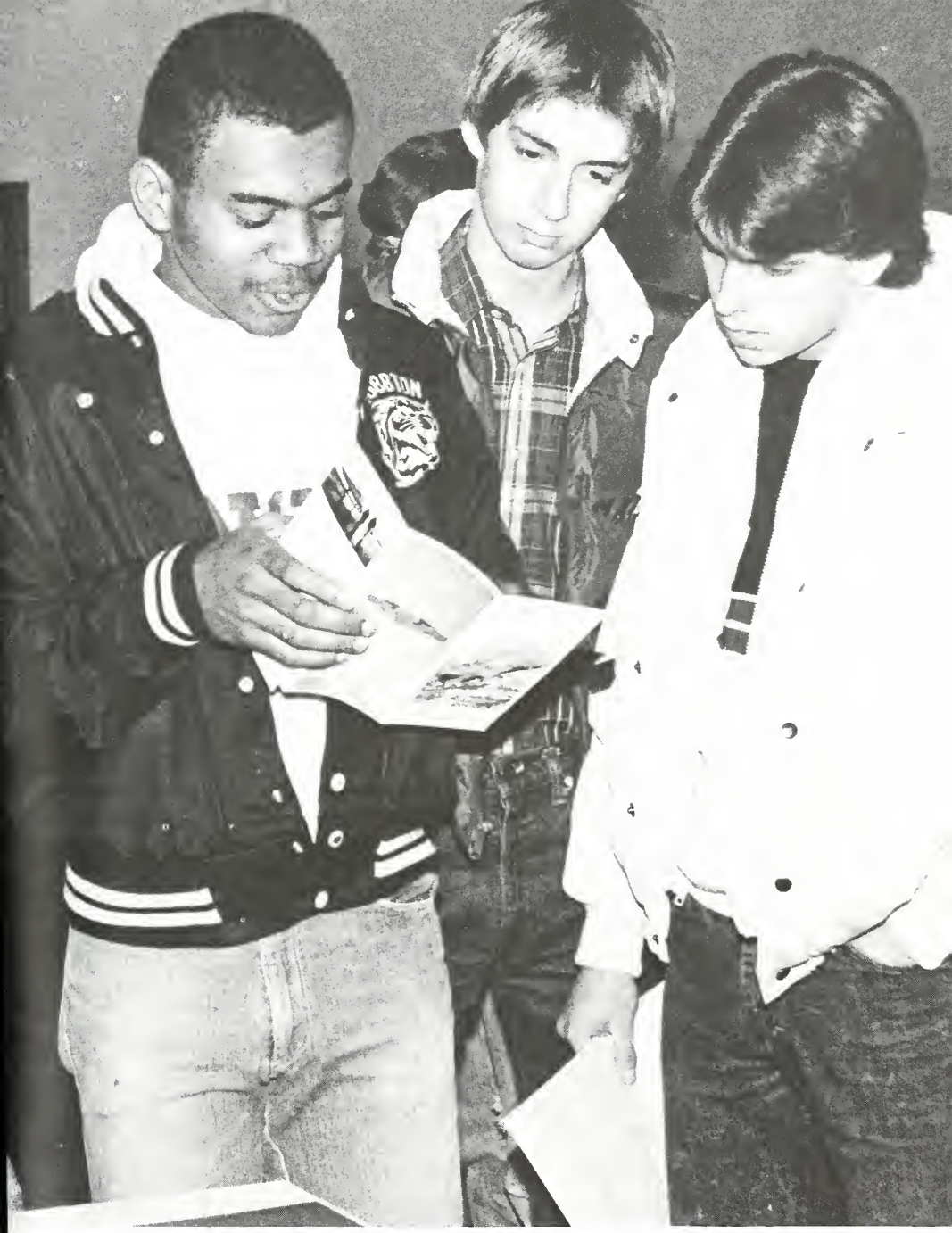
Established by Adrian D. Hurst, Emeritus Professor of Mathematics, this award recognizes a UNCW junior or senior math major who has achieved the highest overall academic grade point average. The award is presented each spring in the form of a plaque.

BIOLOGICAL SCIENCES ACHIEVEMENT AWARD

This award was established by the faculty of the Department of Biological Sciences to honor annually the graduating senior biology major who has achieved the highest academic standing. The recipient is identified on a permanent plaque in the Marine Science Building.

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.



ACADEMIC REGULATIONS

ACADEMIC REGULATIONS

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fall and spring semesters. Its purpose is to acquaint the student with opportunities and services at the University and to provide information needed for registration. Students are notified by mail of the time to report for the activities involved.

All freshmen, all transfer students, and all students changing from unclassified to degree status are assigned to the General College for advising purposes. Although not assigned to the General College, all unclassified students may receive advising assistance in the Advising Center.

REGISTRATION

Registration is limited to the time period specified in the University calendar of events. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the appropriate dean, to carry a maximum of 21 semester hours.

PREREGISTRATION

Preregistration for students currently enrolled is held each semester. Students who complete preregistration and pay fees by the designated date are registered except in the event that they are declared academically ineligible at the end of the preceding semester.

TRANSFER OF CREDIT

Students transferring from a two-year institution may receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will be included in this total.

Students transferring from a four-year institution may receive up to a maximum of 92 semester hours from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will also be included in this total.

A maximum of 15 semester hours earned through correspondence may be applied toward graduation. Credit earned in another institution with a grade of "C" or better is accepted by the University if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. All grades earned at another institution are entered on the student's record exactly as earned. However, quality points earned at other institutions are not transferable and are not used in computing grade point averages except in the case of students applying to enter the teacher education program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the advanced placement programs of the College Entrance Examination Board. A brochure listing the examinations, required minimum scores, course equivalents, and credits awarded is available through the Registrar's Office or the Office of Admissions. A freshman who scores 3 or above on the Advanced Placement test will receive appropriate college credit and advanced placement. Students taking Advanced Placement tests should have the score reports sent to the Registrar's Office for evaluation concerning placement and credit. Individual departments have determined the specific courses for which credit will be given.

Students who are talented and well-prepared but who have not participated in the Advanced Placement or the College Level Examination programs, may apply to the Student Development Center for tests in these programs. Tests are offered during two scheduled testing periods each year.

Students who have been exempted with credit from courses at an accredited college or university may be exempted with credit from appropriate courses at The University of North Carolina at Wilmington, as outlined in the test brochure. When the exemption is based on a test result, the student should have a copy of the score report sent to the Office of Admissions. In those cases in which a student has demonstrated his knowledge of a particular field by more advanced course work, exemptions may be granted on an individual basis by the appropriate department chairman.

ACADEMIC HONOR CODE

The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the University community are encouraged to report occurrences of dishonesty, each individual is principally responsible for his own honesty.

Academic dishonesty takes many forms, from blatant acts of cheating, stealing, or similar misdeeds to the more subtle forms of plagiarism, all of which are totally out of place in an institution of higher learning. To enforce the policy of academic integrity, to ensure justice, and to protect individual rights, a two court system is employed. Complete details may be found in the Student Handbook and in the Faculty Handbook.

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student achievement. Grade symbols used are A–excellent, B–good, C–average, D–passing, F–failure, I–incomplete, W–withdrew.

Quality points are assigned as follows: 4 for a grade of "A"; 3 for a grade of "B"; 2 for a grade of "C"; 1 for a grade of "D." No quality points are given for a grade of "I," "F," or "W." The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "I" or "F" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed according to a deadline established by the instructor, not to exceed one calendar year from the end of the semester in which the incomplete was given; otherwise the "I" becomes an "F."

Grade reports are mailed to the student at the end of each semester.

DEAN'S LIST

To be included in the Dean's List at the close of each semester, students must meet one of the following criteria:

(a) Students carrying 12-14 hours must earn a quality point average of 3.5 or better with no grade less than B.

(b) Students carrying 15 hours or more must earn a quality point average of 3.2 or better with no grade less than B.

Students carrying 11 hours or fewer are not eligible for the Dean's List.

WITHDRAWAL POLICY FOR UNDERGRADUATE STUDENTS (Effective August, 1984)

A student is allowed to withdraw from the University or from individual courses through the first week of the semester without having a grade entered on the academic record. Inclusive of the second through the sixth week of the semester, any student who withdraws from the University or from individual courses will receive a grade of W. A grade of W will not affect the student's grade point average. Beginning with the seventh week of the semester, a grade of F will be assigned for each course withdrawal.

To withdraw from an individual class or classes, the student must submit a Schedule Revision Form(s) to the Registrar's Office prior to the last day for withdrawal as indicated in the University Calendar of Events. To withdraw from all classes, the student must process an official Withdrawal Form through the Dean of Students Office. If the student is unable to appear in person to withdraw, written notice must be sent to the Dean of Students Office.

Should extenuating circumstances warrant, the grade of F assigned for course withdrawal may be changed to a W. This determination will be made by the Dean of the School or College in which the student is enrolled. It is the student's responsibility to initiate the appeal. The decision of the Dean is final and must be rendered prior to the end of the semester in which the withdrawal occurred.

AUDITING

The auditing of courses without credit is permitted by special permission of the Registrar and of the instructor involved. Individuals not regularly enrolled as students in the University who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees as required for credit course.

REPEATING OF COURSES

A student who receives a grade of "C" or better in a course may not repeat the course but may audit it without credit.

A student who receives a grade of "D" may, with the permission of his or her academic advisor and the appropriate academic dean, repeat the course once and receive the grade for the course as repeated. However, no additional credit in hours earned toward graduation will be granted.

A student who receives a grade of "F" in a course may, with the permission of his or her academic advisor and the appropriate academic dean, repeat the course once for credit and a grade.

Course repeat approval forms are available in the Registrar's Office. A student who repeaats a course without obtaining prior approval will receive no credit for the course as repeated. The policy becomes effective with the beginning of the 1985 fall semester.

OFF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, or summer school) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must obtain written approval of the advisor, the department chairman, and the appropriate dean before registering for the course. This permission must be filed in the Registrar's Office on forms supplied by that office.

GRADE APPEAL PROCEDURE

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. Such appeal must be made not later than the last day of the next succeeding regular semester.

1. The student shall present the appeal in writing to the chairman of the department within which the protested grade was awarded. By conferring with the student and the instructor, the chairman will seek resolution by mutual agreement.
2. Failing such resolution the department chairman will transmit the written appeal to the appropriate dean, who will convene the Grade Appeals Committee.
3. The Grade Appeals Committee will consist of the convening Dean and five faculty members appointed by the Dean. If the Committee affirms the instructor's decision, the Dean will notify in writing the faculty member, the student, and the department chairman as appropriate. If the Committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

CLASS ATTENDANCE

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. All faculty members are responsible for setting policy concerning the role of attendance in determining grades for their classes. It is the responsibility of the students to learn and comply with the policies set for each class in which they are registered.

FINAL EXAMINATION POLICY

University policy requires the scheduling of final examinations. Under this policy, the final examination schedule provides a three-hour period for each examination and allows a maximum of three examinations per day. The length of the final examination, up to a maximum of three hours, is at the discretion of the instructor.

The final examination schedule is published at the beginning of each semester. Courses offered during the day have final examinations during the day (two per day). Night courses have final examinations at night (one per night).

A student who is scheduled to take three final examinations in one calendar day may have one rescheduled by notifying the three instructors and the appropriate deans of his desire at least two weeks before the beginning of the final examination period. It will be the responsibility of the three instructors, working with the student, to reschedule one of the examinations and to so inform the student and the appropriate deans at least one week before the beginning of the final examination period.

Rescheduling of a final examination for an entire class may be done only with the approval of the appropriate dean.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in 8 semesters, a

student must average 15 to 16 hours per semester. The required number of hours passed for each classification is as follows:

Less than 27 semester hours credit – Freshman
From 27-58 semester hours credit – Sophomore
From 59-88 semester hours credit – Junior
More than 88 semester hours credit – Senior

Retention, Dismissal and Readmission

Scholarship is both encouraged and required at The University of North Carolina at Wilmington. In order to remain at the University, all students must meet the quality point requirements as outlined below.

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
6-26	1.2
27-58	1.5
59-88	1.8
89 or more	2.0

Transfer students are placed in the above retention chart based on total hours transferred from all institutions attended. A transfer student's quality point average is computed only on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed to make up deficiencies during the summer sessions of this University which immediately follow the spring semester in which they were declared ineligible. If such deficiencies are not removed in this manner, the student will be dismissed from the University for one semester. The student may reenroll for any subsequent semester if space is available. Reenrollment, if allowed, is on a probationary basis and such students must prove themselves by meeting the required quality point average as outlined in the retention chart. However, any reenrolled student who makes a 2.0 average or better during the first semester after his return, but who fails to reduce his quality point deficiency to the required level, will be granted one additional semester in which to meet this requirement.

A student may, through appropriate administrative review of mitigating circumstances, be authorized to continue with his/her studies on a conditional basis.

Any full-time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester. Any student who fails to meet this requirement will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the retention table if they wish to continue in the University.

HONORS PROGRAM

A student who has a quality point average 3.2 or better (including all transferred work) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.2 or better quality point average at The Univer-

sity of North Carolina at Wilmington, and who is recommended by the chairman of the area in which he is concentrating, is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required courses.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.2 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.2, however, may still receive credit for the honors project.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0 The final 30 semester hours of course credit, including the final 15 semester hours in the concentration, must be completed at The University of North Carolina at Wilmington.

Graduation will be certified at the end of the term in which all academic requirements are complete. Upon completion of all requirements, the student will receive either the Bachelor of Arts or the Bachelor of Science Degree.

> Application for graduation must be filed in the Office of the Registrar on or before the dates specified in the University calendar on page 4.

In advising and registering students, the deans, the Registrar and faculty advisors try to make certain that every student who intends to graduate from the University registers for those courses which are required for a degree. **The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the University catalogue.**

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the catalogue under which he entered or under any subsequent catalogue, providing he completes all graduation requirements within six years of the expiration date of the catalogue chosen.

REQUIREMENTS FOR A DOUBLE CONCENTRATION

A student may elect to concentrate in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meets all requirements for each concentration. The student who completes requirements for more than one concentration will receive only one degree, but at the time of his initial graduation his record will indicate both concentrations when the completed requirements lead to the same baccalaureate degree.

A student who returns to the University after his initial graduation to complete the re-

quirements for a second concentration may have the additional area of concentration added to his official record upon written notification from the department chairman that all departmental requirements have been satisfactorily met.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree may receive a second baccalaureate degree if it is a different degree and a different concentration by fulfilling the following requirements:

(1) He must meet all the requirements for the second degree and concentration.
(2) He must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

DEGREES WITH DISTINCTION

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average of 3.50
Magna Cum Laude for an overall average of 3.70
Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

1. The student must have the required overall average on all work attempted (including any transfer credit).
2. The student must have the required average on work attempted at The University of North Carolina at Wilmington.

Students who complete the Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

TRANSCRIPTS

All students are entitled to one official transcript of their work without charge. Additional copies of the transcript at a cost of $1.00 each may be obtained upon written request to the Office of the Registrar.

INDEBTEDNESS

All indebtedness to the University must be satisfactorily settled before a diploma or transcript of record will be issued.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar of any change in name or mailing address for grades and bills.

DEGREE REQUIREMENTS AND COURSE DESCRIPTIONS

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to the Bachelor of Arts and the Bachelor of Science degrees, a two-year program leading to the Associate in Arts degree in Nursing (last class was admitted in 1984), and graduate programs leading to the Master of Business Administration, Master of Education, and Master of Science degrees. Professional undergraduate programs include those offered in the Cameron School of Business Administration, the School of Education, the School of Nursing and the Medical Technology program in the College of Arts and Sciences. Preprofessional programs are offered in engineering, medicine, dentistry, forestry, law, pharmacy and agriculture. The University has special programs in marine sciences and environmental studies.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Anthropology
Biology
Chemistry
Creative Arts
  Art
  Drama
  Music
Economics
Elementary Education
English
Environmental Studies
French
Geography
Geology
History
Mathematics
Middle Grade Education
Parks and Recreation Management
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish
Special Education
Speech Communication

Areas of Concentration for the Bachelor of Science Degree

Accountancy
Biology
Business Management
Chemistry
Computer Science
Economics
Geology
Marine Biology
Marketing
Mathematics
Medical Technology
Nursing
Physics

Area of Concentration for the Master of Business Administration

Business Management and Administration

Areas of Concentration for the Master of Education Degree

Elementary Education
Special Education
Educational Administration and Supervision

Areas of Concentration for the Master of Science Degree

Marine Biology
Biological Oceanography
Coastal Biology

THE GENERAL COLLEGE

The General College ordinarily consists of the first two years of study during which students are expected to fulfill all or most of the University's basic studies requirements as outlined in this University catalogue. All freshmen and transfer students are enrolled in the General College. Upon entering the University, many students do not know which major they will pursue. Courses prerequisite to a major, combined with elective courses, provide the opportunity to explore several different areas of academic interest. Students who have already chosen their major or professional program will still want to complete, or make satisfactory progress toward completing, basic studies requirements combined with other required courses in their chosen field before transferring from the General College. Also, students with admissions deficiencies are expected to remain in the General College until those deficiencies are made up.

Transfer students who have met the necessary requirements will be referred immediately to the appropriate department within the College of Arts and Sciences. Those who have not met these requirements will be retained in the General College until such requirements have been met. For professional schools or Computer Science, admissions requirements are outlined below.

The General College Advising Program

Each student in the General College receives the personal assistance of a faculty advisor in selecting courses, maintaining required scholastic standards, and planning a complete General College educational program. Every effort is made to place each student in classes appropriate to his or her level of preparation and achievement.

The General College Advising Program has over 50 faculty advisors and is responsible for advising all students in the General College. Advising assistance is available in the General College Advising Center, upstairs in Hoggard Hall, from 8 a.m. - 5 p.m., Monday through Friday during the fall and spring semesters. Advisors may be seen either on an appointment or a drop-in basis. Advisees are expected to see their advisors before preregistration/registration and before dropping or adding courses or before withdrawing from the University.

Admission to the College of Arts & Sciences

Students reasonably certain of a major within the College of Arts & Sciences (except Computer Science) may request to have their records transferred to the appropriate department toward the end of the second semester of the freshman year. Students still uncertain of a major should remain in the General College during their sophomore year and continue receiving General College advising assistance.

Students planning to major in Computer Science must first:

1. Complete the following courses with a grade point average greater than 2.5:
   - CSC 121 Introduction to Computer Science I
   - CSC 231 Discrete Structures
   - CSC 241 Introduction to Computer Systems & Assembly Languages
   - MAT 211 Calculus with Analytic Geometry
2. Complete a minimum of 44 semester hours with a cumulative grade point average of 2.5 or better (4.0 scale).

(Upon the completion of these requirements to major in Computer Science, students may request to have their records transferred to the Department of Mathematical Sciences.)

Admission to the Professional Schools

Students seeking admission to the Cameron School of Business Administration and the School of Education normally would submit their applications to the appropriate school immediately upon completion of the third semester of study, provided that all minimal requirements as stated in the University catalogue have been met at the time of application.

Students seeking application to the School of Nursing should submit their applications to the School after completion or while enrolled in the last semester of prerequisite courses. The application deadline is February 15 for admission to summer and fall nursing courses.

I. Requirements for Admission to the Cameron School of Business Administration

1. The following courses must have been successfully completed:

ENG 101-102	Composition
MAT 111	Precalculus
MAT 205	Basic Calculus
ACG 201*	Financial Accounting
ECN 221	Principles of Economics (Micro)

2. During the semester of application each applicant must be enrolled in or have successfully completed:

ACG 203 or 204*	Managerial Accounting or Intermediate Accounting I
ECN 222	Principles of Economics (Macro)
BUS 217*	Statistical Analysis

*ACG 201 and 203 or 204 not required and STT 205 or 215 may be substituted for BUS 217 in the B.A. Economics degree program.

3. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).

II. Requirements for Admission to the School of Education and the Teacher Education Program

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.

3. Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).

4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

III. Requirements for Admission to the School of Nursing–Bachelor of Science Degree Program

1. Minimum overall cumulative GPA of 2.5 or better (on a 4.0 scale) is required for all course work completed at the college or university level.

2. Minimum grade of "C" in each of the following courses or their equivalent:

BIO 240-241	Human Anatomy & Physiology (2 semesters)
CHM 115	Fundamentals of General Chemistry
CHM 215	Organic/Biologic Chemistry
BIO 246	Microbiology of Human Diseases
MAT 111	Precalculus Mathematics

3. Completion of all courses prerequisite to the nursing major. (Any foreign language deficiency must have been completed prior to admission to the program).

4. Evidence of satisfactory high school completion or equivalent.

5. Satisfactory physical and emotional health.

BASIC STUDIES REQUIREMENTS

Basic studies at The University of North Carolina at Wilmington is defined as the acquisition of essential skills and an introduction to the broad spectrum of studies which are basic to our intellectual and cultural heritage. The program is designed to develop skills in comprehension, composition, reasoning and analysis; to introduce students to the structure, methodology and knowledge of academic disciplines; and to address important human concerns from disciplinary or interdisciplinary perspectives.

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must meet the basic studies requirements as outlined below, and in fulfilling these requirements must acquire a total of forty-five (45) semester hours less exemptions.

A. English Composition (6 hours)
Required: English 101 and 102 (3-3)

B. Physical Education (2 hours)
Required: Physical Education 101 (2)

C. Humanities (9-15 hours)
Required: A minimum of nine and a maximum of fifteen hours elected from at least two of the following areas:
Communications 105
English 110, 207, 208, 210, 211, 212, 219, 230, 250
History 101, 102, 201, 202, 237, 261, 273, 275

Modern Languages
French 101, 102, 201, 202, 305, 311, 312, 321, 322
German 101, 102, 201, 202, 305, 321, 322, 350
Spanish 101, 102, 201, 202, 209, 210, 211, 212, 305, 311, 312, 321, 322
Portuguese 101, 102, 201, 202
Philosophy and Religion 101, 103, 110, 115, 201, 202, 205, 215, 230, 232, 235, 236, 242

D. Creative Arts (3-6 hours)
Required: A minimum of three and a maximum of six hours elected from the following areas:
Art 101, 102, 111, 112, 201, 202, 204, 221, 241, 242
Communications 116
Drama 221, 225
Music 085*, 086*, 087*, 105, 115, 116, 117, 118
*(Basic studies credit from Music 085, 086, and 087 may not exceed a total of three semester hours.)

E. Natural and Mathematical Sciences (10-15 hours)
Required: A minimum of 10 and a maximum of 15 hours from the two areas of natural sciences and mathematical sciences as described below:

1. Natural Sciences (4-12 hours)
Required: A minimum of 4 and a maximum of 12 hours, including at least one laboratory science course (starred below), elected from the following:
Anthropology 210
Biology 105*, 205*, 206*, 207, 215*, 235, 236, 237, 238, 240*, 241*
Chemistry 101*, 102*, 103*, 105, 106*, 115*, 215*
Geography 130*, 230
Geology 101*, 102*, 120, 150
Physical Education 216*, 217
Physics 101*, 102*, 105*, 201*, 202*, 260

2. Mathematical Sciences (3-8 hours)
Required: One of the following courses:
Mathematics 101, 111, 115, 141, 205, 211
Additional credit may be earned by electing from the following:
Computer Science 111
Mathematics 102, 112, 142, 205, 206, 211, 212, 275
Philosophy and Religion 218
Statistics 205, 210, 215

F. Social and Behavioral Sciences (3-9 hours)
Required: A minimum of three and a maximum of nine hours elected from the following:
Anthropology 105, 205 (Sociology 205), 206, 207
Criminal Justice 201
Economics 125, 221, 222
Geography 110, 140

Political Science 101, 102, 111, 206, 207
Psychology 105, 145, 220, 323
Social Work 235, 245
Sociology 105, 110, 205 (Anthropology 205) 215, 225

Waiver of Requirements

The requirement that students take English 101, 102 and/or one of the introductory mathematics courses (101, 111, 115, 141, 205, 221) may be waived if the student demonstrates by examination an appropriate proficiency.

REQUIRED PHYSICAL EDUCATION

Through participation in the required physical education program, students should expect to develop an understanding of the role of life-long physical activity in enhancing the quality of one's life.

The University requires all students to complete with a passing grade Physical Education 101, Foundations of Physical Activity. Transfer students who have not had an equivalent course must also complete this requirement. Handicapped students are encouraged to participate to the full extent possible in physical education activities and are encouraged to consult with the chairman of the Department of Health, Physical Education, and Recreation concerning participation in these activities.

The University requires all students to provide information regarding their current health status on the Report of Medical History form available through the Admissions Office. Completion of this requirement is a prerequisite to:

1) enrollment in any physical education activity course,
2) participation in any intramural activity, or
3) utilization of the physical education facilities for recreational purposes.

Based on the information contained in this report, the student will be assigned to one of three categories listed below:

A. Unrestricted participation
B. Restricted participation
C. Temporarily restricted participation because of an injury or illness.

COURSE DESCRIPTIONS

All undergraduate courses offered in the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing are listed following the appropriate departmental degree requirements. Not all of the courses listed are offered within a single academic year. A listing of the courses offered during a given semester is printed in a Class Schedule Booklet, which is placed in each student's University mailbox before preregistration each semester.

PLEASE NOTE: A hyphen connecting courses (e.g., 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g., 201, 202), the first course is not necessarily prerequisite to those following. The semester hours credit for each course is indicated in parentheses following the course title.

TRIAL COURSES

Academic departments may offer special trial courses during the fall and spring semesters on a one-time basis without adding them to their regular departmental offerings. A sec-

ond trial offering, if additional data are essential, must be within two regular semesters of the first. Numbers designating these special courses are 292 and 492. Descriptive information on trial courses does not appear in the catalogue, but is on file in the Office of the Registrar.

DIRECTED INDIVIDUAL STUDY

This course designated as 491 in each department involves investigation beyond what is offered in existing courses. To enroll in a Directed Individual Study, students must have an overall grade point average of at least 2.0 and the approval of 1) the faculty member who would direct the study, 2) the departmental chairman, and 3) the appropriate Dean. Departmental criteria will include 1) the availability of the instructor (ordinarily instructors will not supervise more than 6 student credit hours of Directed Individual Study per semester), 2) the appropriateness of and need for the proposed study in the student's program, 3) the availability of library and other research resources, and 4) the feasibility of completion of the proposed study in the allotted time. Students are limited to 9 credit hours of Directed Individual Study toward graduation requirements, not more than 3 of which can be outside the area of concentration.

COLLEGE OF ARTS AND SCIENCES

Daniel B. Plyler, *Dean*

The College of Arts and Sciences offers a variety of liberal arts programs leading to the Bachelor of Arts and Bachelor of Science degrees and a graduate program in Marine Biology leading to the Master of Science degree. The fourteen academic departments of the College provide courses of study in the fine arts and humanities and in the physical, biological, and social sciences. Degree requirements for all undergraduate concentrations available in the College of Arts and Sciences are listed below by departments. Requirements for the Master of Science degree are listed in the Graduate Studies section.

DEPARTMENTAL REQUIREMENTS

ANTHROPOLOGY

(See Sociology and Anthropology)

ARMY ROTC

(See Military Science)

ART

(See Creative Arts)

BIOLOGICAL SCIENCES

Dr. Merritt, *chairman*. Dr. Ballard, Dr. Biggs, Dr. Cahoon, Dr. Dillaman, Dr. Dodd, Dr. Dunn, Dr. Fugler, Dr. George, Dr. Hackney, Dr. Hosier, Dr. Kapraun, Mrs. Kendrick, Dr. Lindquist, Dr. Lundeen, Dr. McCrary, Dr. Mintzes, Dr. Padgett, Dr. Parnell, Dr. Plyler, Dr. Roer, Dr. Roye, Dr. Shafer, Dr. Sieren, Dr. Sizemore, Dr. Webster.

Requirements for a concentration in Biology for the B.A. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. In addition to these requirements, there are two options described below, one of which a student must elect in order to complete the degree requirements.

Option 1.

Biology 495 and a minimum of 23 hours chosen from courses numbered above 299, of which at least one course must be from each of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology; Chemistry 101-102 with lab or 105-106-102 with lab; a minimum of 16 hours chosen from the listed courses in at least two of the following areas: Chemistry 311, 312, 333; Computer Science 105, 111, 115; Geography 432, Geology 101, 102, 150, 450; Mathematics 205, 206, 211, 212, 213; Physics 101 or 105, 102, 201, 202, 260; Psychology 456, 457; Statistics 215. With the advance approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is a flexible program which can be designed by a student and an advisor to meet personal educational goals and interests which may or may not include graduate study; the program may be used to meet a set of specific requirements, for example, certification for teaching at the secondary school level.

Option 2.

Biology 335, 366, 475, 495; at least two of the following: Biology 356, 452, 454, 456, 457; a minimum of 8 hours chosen from Biology 315, 316, 345 or 355, 375, 377, 466, 491; Chemistry 101-102 with lab or 105-106-102 with lab; a minimum of 16 hours chosen from Chemistry 311, 312; Mathematics 111, 112; Geology 101, 102; Geography 432; Psychology 457; Statistics 215; Computer Science 105, 111. With the advance approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is designed for students interested in studying freshwater and terrestrial higher plants and animals and who will pursue graduate study and/or careers in such fields as systematics, ecology, fish and game management, and nature interpretation in parks and wilderness areas.

Requirements for a concentration in Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 315 or 375 or 474, 335 with lab, 345 or 355 or 347 with lab, 366, 495, and a minimum of 6 additional hours in courses numbered above 299, one course each from two of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology. Collateral requirements are Chemistry 101-102 with lab or 105-106-102 with lab, 311-312 with lab; Physics 101-102 or 201-202; Mathematics 205 and Statistics 215. Students planning to attend graduate school are urged to take Chemistry 335, Mathematics 206, Computer Science 111, 121, 125, 126, and French 201-202 or German 201-202. A "C" or better average on all Biology courses above 299.

This degree program is designed for those students who plan to attend graduate school or seek employment in various fields of biological specialization.

Requirements for a concentration in Marine Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 362, 366, 345 or 355 or 347 with or without a lab; 315 or 316 or 335 with or without lab or 474; 495; a minimum of 8 hours selected from the following: 365 or 481, 446 or 472, 457, 458, 462, 468. Collateral requirements are Chemistry 101-102 with lab or 105-106-102 with lab; Geology 150; Physics 101-102 or 201-202; Mathematics 111-112 or 115-205 or a higher sequence; a minimum of 4 semester hours chosen from Chemistry 311, 312, 333, 335, 475; Computer Science 111, 121, 125; Earth Sciences 230; Geography 430, 432; Geology 101, 231, 450; Statistics 215. A "C" or better average on Biology courses above 299.

This degree program is designed for those students who plan to attend graduate school or seek employment in fields of biological specialization which are marine-related.

For the purpose of satisfying degree requirements in Biology, the following are considered to be courses in

Advanced Botany: 355, 375, 377, 446, 472, 474, 475
Advanced Zoology: 315, 316, 345, 356, 365, 452, 454, 456, 475, 458, 462, 481
Cellular-molecular Biology: 335, 347, 410, 425, 430, 440, 465, 467

Requirements for Teacher Certification in Biology: In addition to completing the requirements for a degree in Biology or Marine Biology and the other requirements of the Teacher Education Program, the following courses are required for certification: Biology 315; 235 or 335 with or without lab; 345 or 347 with or without lab or 355; and 366.

Biology Course Descriptions

BIO 105. Concepts of Modern Biology (4) An introduction to the diversity of life and the principles governing living systems, focusing on the role of man in the natural world. This course employs multi-media instructional materials and is designed for the nonbiology major. Three lecture hours and three laboratory/discussion hours each week.

BIO 108. Introduction to Medical Technology (1) A survey of medical laboratory technology as a career option. Explores the many disciplines encompassed by the profession including microbiology, chemistry, blood banking, and hematology as they apply to the medical diagnostic laboratory, as well as brief considerations of cytotechnology and histo-technology. The course includes a discussion of the nature and scope of necessary skills, opportunities for advancement, certification requirements, and visits to a hospital laboratory. One hour and fifteen minutes each week.

BIO 205, 206, 207, 208. Core courses for biology majors; must be completed within the first four semesters.

BIO 205. Introductory Biology: Plants (4) Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes, and lower vascular plants. Three lecture and three laboratory hours each week.

BIO 206. Introductory Biology: Animals (4) Classification, morphology, physiology, and ecology of animals, including a brief survey of major phyla and discussion of human body systems. Three lecture and three laboratory hours each week.

BIO 207. Introductory Biology: Cells (3) An introduction to the cell as the basic unit of life. Cell structure is integrated with such functions as the utilization of food energy, the expression of genetic potential, cell movement, and reproduction. Three lecture hours each week.

BIO 208. Methods of Biological Research (3) Prerequisite: 2 semesters of introductory biology. An introduction to the scientific method, hypothesis construction, library resources, paper preparation and presentation, the use of computers, and basic statistics. Three hours each week.

BIO 215. Anatomy and Physiology (4) Prerequisite: Credit in Biology or consent of instructor. Brief introduction to major biological principles as applied to study of human anatomy and physiology. Three lecture and three laboratory hours each week.

BIO 216. (Physical Education 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three laboratory hours each week.

BIO 217. (Physical Education 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

BIO 225. Bacteriology (3) Prerequisite: Credit in Biology. Open only to nursing students. Bacteria and related organisms; laboratory work in common bacteriological techniques. Two lecture and three laboratory hours each week.

BIO 235, 236, 237, 238. Elective courses primarily for non-major students, emphasizing "man in the natural world"; two or more to be offered each semester.

BIO 235. Genetics in Human Affairs (3) A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three lecture hours each week.

BIO 236. Biology of the Sea (3) An introduction to marine environments, the diversity of marine life and the role of man in the utilization of marine resources. Students will become acquainted with local marine habitats, including: salt marshes, sandy beaches, tidal flats and rocky shores. Three lecture hours each week.

BIO 237. Plants and Civilization (3) An introduction to the plant kingdom, the diversity, structure, and function of plant life, and the impact of plants on human culture, history, civilization and economics. Three lecture hours each week.

BIO 238. Microbes and Human Society (3) An introduction to the world of the microorganism, focusing on the diversity, structure and function of microbial life, the spread and control of disease-producing organisms, and the impact of these life forms on human culture, history, and civilization. Three lecture hours each week.

BIO 240-241. Human Anatomy and Physiology (4-4) A comprehensive introduction to the anatomy and physiology of the human organism. Organ systems of the body are discussed individually and as parts of interacting groups, with emphasis on the processes which maintain an internal steady-state. Three lecture and three laboratory hours each week.

BIO 246. Microbiology of Human Diseases (4) Prerequisite: Biology 240. An introduction to the biology of microorganisms which affect humans. Emphasizes pathogenic and related microorganisms. The basic microbiological techniques needed to isolate, identify and control microorganisms will be covered. Three lecture and three laboratory hours each week.

BIO 315. Comparative Vertebrate Anatomy (4) Prerequisite: Biology 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals; representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

BIO 316. Vertebrate Embryology (4) Prerequisite: Biology 206. Fundamental principles of embryonic development of vertebrate animals; frog, chick, and pig emphasized. Three lecture and three laboratory hours each week.

BIO 335. Genetics (3) Prerequisite: Core courses. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action. Three lecture hours each week.

BIO 335-51. Genetics Laboratory (1) Prerequisite: Core Courses. Corequisite: Biology 335. Demonstration of basic heredity principles through study of Drosophila and other genetic systems. Three laboratory hours each week.

BIO 341. Clinical Calculations (1) Prerequisite: Junior status. Laboratory calculations specifically for Medical Technology majors, although it is open to other majors as well. Reviews basic chemical calculations and introduces the common mathematic applications in medical/biological laboratory. One hour each week.

BIO 345. Animal Physiology (4) Prerequisite: Biology 206, 207, and Chemistry 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

BIO 347. Molecular Biology of the Cell (3) Prerequisite: Biology 207 and Chemistry 311-312. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function. Three lecture hours each week.

BIO 347-51. Molecular Biology of the Cell Laboratory (1) Prerequisite or corequisite: Biology 347. Experiments demonstrating basic phenomena underlying cellular function. Three laboratory hours each week.

BIO 349. (Physical Education 349) Applied Physiology of Exercise (4) Prerequisite: Biology 215 or 345. A study of fundamental responses of the human body to stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and three laboratory hours each week.

BIO 355. Plant Physiology (4) Prerequisite: Biology 205, 207, and Chemistry 102. A study of plant function at the molecular, cellular, and organismic levels. Emphasis placed on unique aspects of vascular plants. Topics include water relations, solute tranport, photosynthesis, nitrogen metabolism, plant hormones, photocontrol of development, and stress physiology. Three lecture and three laboratory hours each week.

BIO 356. Vertebrate Natural History (4) Prerequisite: Biology 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

BIO 362. Marine Biology (4) Prerequisite: Biology 205, 206. The coastal and oceanic biota and their relationships to the marine environment. Three lecture and three laboratory hours each week.

BIO 365. Invertebrate Zoology (4) Prerequisite: Biology 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histories. Three lecture and three laboratory hours each week.

BIO 366. Ecology (4) Prerequisite: Core courses and upper level credit. Ecological principles pertaining to both plants and animals. Three lecture and three laboratory hours each week.

BIO 371. Human Fungal Diseases (1) Prerequisites: Biology 205 or 215 or permission of instructor. An in-depth consideration of human mycotic diseases for medical technology, nursing and premedical students. Emphasis will be placed on etiology, predisposing conditions, clinical diagnosis, immunology, serology and therapy of most presently recognized human mycoses. One hour each week.

BIO 375. Plant Morphology (4) Prerequisite: Biology 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants with emphasis on life histories, structure, and development. Three lecture and three laboratory hours each week.

BIO 377. Mycology (4) Prerequisite: Biology 205 and 207. Taxonomy, morphology, and ecology of fungi with emphasis on fungal evolution and the importance of fungi to humans. Fungi as causal agents of both plant and animal diseases will also be discussed. Three lecture and three laboratory hours each week.

BIO 410. (Marine Biology 512) Electron Microscopy and Cell Ultrastructure (3) Prerequisite: Biology 347. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and function of cell organelles in plants and animals. Three lecture hours each week.

BIO 410-51. (Marine Biology 512-51) Electron Microscopy Laboratory (1) Corequisite: Biology 410 and permission of instructor. Techniques for fixing, embedding, and thin sectioning of tissue will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours each week.

BIO 425. Microbiology (4) Prerequisite: Core courses. A study of nonpathogenic and pathogenic microorganisms with emphasis on the biology of viruses and bacteria. Laboratory sessions will include the techniques required to identify, culture and stain selected microorganisms. Three lecture and three laboratory hours each week.

BIO 430. (Anthropology 430) Evolutionary Biology (3) Prerequisite: Biology 335. Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three lecture hours each week.

BIO 435. (Marine Biology 535) Molecular Genetics (3) Prerequisite: Chemistry 102 and Biology 335 or 347 or 465. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein synthesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity, synthesis, and function. Three lecture hours each week.

BIO 440. (Marine Biology 544) Developmental Biology (4) Prerequisite: Core courses. Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environmental control of development. Plant and animal systems studied in modern research literature will be discussed. Three lecture and three laboratory hours each week.

BIO 441. Introduction to Immunology (1) Prerequisite or corequisite: Chemistry 312. A general survey of modern immunological principles. One lecture hour each week.

BIO 445. (Marine Biology 545) Marine Physiology (4) Prerequisite: Biology 365. Introduction to physiological systems characteristic of marine vertebrates and invertebrates. Emphasis on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion, and movement. Three lecture and three laboratory hours each week.

BIO 446. Phycology (4) Prerequisite: Biology 205. An introductory survey of algal groups including benthic and planktonic freshwater and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

BIO 452. (Marine Biology 554) Mammalogy (4) Prerequisite: Core courses. A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptations, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lecture and three laboratory hours each week.

BIO 454. (Marine Biology 557) Herpetology (4) Prerequisite: Core courses. Study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

BIO 456. (Marine Biology 556) Ornithology (4) Prerequisite: Core courses or consent of instructor. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

BIO 457. (Marine Biology 537) Ichthyology (4) Prerequisite: Core courses. The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

BIO 458. (Marine Biology 565) Fisheries Biology (4) Prerequisite: Biology 457, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, migration, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

BIO 460. (Marine Biology 567) Limnology (4) Prerequisite: Core courses and Chemistry 102. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

BIO 462. (Marine Biology 552) Deep Sea Biology (3) Prerequisite: Biology 362. Biology of animals inhabiting the deep sea environment off North Carolina. Emphasizes faunal zonation, abyssal zoo-geography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea. Three lecture hours each week.

BIO 465. (**Marine Biology 540**) (**Chemistry 465**) **Biochemistry** (3) Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bioenergetics, regulatory mechanisms. Three hours each week.

BIO 466. (**Marine Biology 534**) **Advanced Ecology** (4) Prerequisite: Biology 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

BIO 467. (**Marine Biology 542**) **Biochemical Methodology** (3) Prerequisite or corequisite: Biology 465 or Chemistry 465 and consent of instructor. A laboratory course dealing with the techniques and methodology of modern biological chemistry. Topics include various types of chromatography and isolation and assay procedures for various biological molecules. One lecture and five laboratory hours each week.

BIO 468. (**Marine Biology 570**) **Planktonology** (4) Prerequisite: Biology 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

BIO 470. Ecology of Human Populations (3) Prerequisite: Biology 345, 366. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week.

BIO 472. (**Marine Biology 572**) **Marine Phycology** (4) Prerequisite: Core courses. An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

BIO 474. (**Marine Biology 576**) **Comparative Morphology of Vascular Plants** (4) Prerequisite: Core courses. An in-depth study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

BIO 475. (**Marine Biology 574**) **Plant Taxonomy** (4) Prerequisite: Core courses or consent of instructor. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of Southeastern North Carolina. Two lecture and four laboratory hours each week.

BIO 480. (**Marine Biology 580**) **Field Studies in Biology** (1-6) Prerequisite: Biology 205 and 206, and consent of instructor (Biology 366 and credit in advanced zoology or botany recommended). A research/experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

BIO 481. (**Marine Biology 559**) **Marine Invertebrate Zoology** (4) Prerequisite: Core courses. A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

BIO 485. (Marine Biology 585) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

BIO 491. Directed Individual Study (1-3) Prerequisite: Biology 208, junior or senior standing, consent of instructor, and consent of department chairman.

BIO 495. Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Individual reports and group discussions of the results of student field, laboratory and/or library research on selected topics in Biology. May be repeated for a maximum of 3 semester hours.

BIO 499. Honors Work in Biology (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

CHEMICAL AND PHYSICAL SCIENCES

Dr. Jack B. Levy, *Chairman.*

The Department of Chemical and Physical Sciences is comprised of the divisions of Chemistry and Physics.

CHEMISTRY

Dr. Adcock, Dr. Cahill, Dr. Hornack, Ms. Jones, Dr. Levy, Dr. Manock, Dr. Martin, Dr. Miller, Dr. Nance, Dr. Reeves, Dr. Sayed, Dr. Ward, Dr. Willey.

Requirements for a concentration in chemistry for the B.A. degree:

Core courses: Chemistry 101-102, 101-51, 102-51, 311-312, 311-51, 312-51, 325, 325-51, 335, 335-51, 355, 445, 495 or Environmental Studies 495, Mathematics 205-206, and Physics 101-102 or 201-202.

Also required are the courses in one of the following emphasis alternatives:

Education: Education-Psychology block of 31 semester hours, Biology 105, and three of the following courses: Biology 205, 206, 207; Geology 101, 120, and 150; and Physics 260. Students completing this option qualify for teaching certification in chemistry. By including one biology course from Biology 205, 206, 207 and two geology courses from Geology 101, 120, and 150, students completing this option also qualify for certification in science.

Environmental Science: Chemistry 377, Biology 205 or 206, Environmental Studies 195, Geology 120, and Statistics 215. Among the core courses, Environmental Studies 495 is required.

Industrial Chemistry: Chemistry 315-316 or 435 and 435-51, Chemistry 377 and 485, Accounting 201-202, Business 207 or Statistics 215, and Business 303 or Computer Science 111. Chemistry 485 offered Spring 1987 and alternate years.

Marine Science: Chemistry 475, Biology 205 or 206, Geology 101 and 150, and either Biology 362 or Geology 450.

Premedical Science: Chemistry 417 and 465 and Biology 206, 207, and 315. Chemistry 417 offered Spring 1986 and alternate years.

A "C" or better on each Chemistry course.

Requirements for a concentration in Chemistry for the B.S. degree:

Chemistry 101-102, 101-51, 102-51, 311-312, 311-51, 312-51, 315-316, 321-322, 321-51, 322-51, 335, 335-51, 355, 435, 435-51, 445; either 445-51, 476, or 491 (1 hour); 495 and two of the following: 415, 446, 465, 485, and 491 (3 hours). Mathematics 211, 212, 213,

and 315 and either Physics 201-202 or Physics 101-102, 206-207. A "C" or better on each Chemistry course. Students working for the B.S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

Chemistry Course Descriptions

(Department of Chemical and Physical Sciences)

CHM 101-102. General Chemistry (3-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with General Chemistry Laboratory (101-51, 102-51). Three hours each week.

CHM 101-51, 102-51. General Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

CHM 105-106-102. General Chemistry (2-2-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Chemistry 105-106 is a slower-paced equivalent of Chemistry 101. General Chemistry Laboratory 101-51 is normally taken concurrently with Chemistry 106, and Chemistry 102-51 is taken with Chemistry 102. Chemistry 105-106, two hours each week. Chemistry 102, three hours each week.

CHM 103. Chemistry in Everyday Life (4) A terminal, relatively non-mathematical one-semester course in chemistry for the non-science major. Topics include atomic and molecular structure as a basis for a general understanding of chemical reactions, drug activity, cancer, nuclear power, pesticides, environmental problems, energy resources, food additives, and the chemical industry. Three lecture and three laboratory/discussion hours each week. May not be taken for credit after Chemistry 102 has been passed.

CHM 107. Physical Science for Nurses (4) A one-semester course designed for nursing students. Three lecture and three laboratory hours each week.

CHM 115. Fundamentals of General Chemistry (3) Prerequisite or corequisite: Mathematics 111. A one-semester introduction to fundamental laws, principles, and theories of chemistry, and study of selected elements and compounds. Prepares students for Chemistry 215. May not be taken for credit after another General Chemistry course has been passed. Three lecture hours each week.

CHM 115-51. Laboratory for Fundamentals of General Chemistry (1) Corequisite: Chemistry 115. Introduction to techniques and equipment in the chemistry laboratory and interpretation of experimental results. Three laboratory hours each week.

CHM 215. Fundamentals of Organic and Biological Chemistry (3) Prerequisite: Chemistry 115 and 115-51 or 102 and 102-51. A one-semester introduction to the chemistry of carbon compounds with emphasis on those involved in biological processes, including proteins, carbohydrates, lipids, nucleic acids, vitamins, and hormones. May not be taken for credit after Chemistry 311 has been passed.

CHM 215-51. Laboratory for Fundamentals of Organic and Biological Chemistry (1) Corequisite: Chemistry 215. Introduction to equipment and techniques of organic and biological chemistry and interpretation of experimental results. Three laboratory hours each week.

CHM 311-312. Organic Chemistry (3-3) Prerequisite: Chemistry 102 and 102-51. Introduction to the chemistry of carbon compounds, including structural theory, synthesis, and reaction mechanisms. Normally taken concurrently with Organic Chemistry Laboratory (311-51, 312-51). Three hours each week.

CHM 311-51, 312-51. Organic Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 311-312. Three laboratory hours each week.

CHM 315-316. Advanced Techniques of Organic Chemistry (2-2) Prerequisite or corequisite: Chemistry 311-312 and 311-51, 312-51. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. One lecture and three laboratory hours each week.

CHM 321. Physical Chemistry (3) Prerequisite: Chemistry 102, Physics 202, and Mathematics 213. Chemnical thermodynamics, reaction kinetics, and introduction to statistical mechanics. Three hours each week.

CHM 322. Physical Chemistry (3) Prerequisite: Chemistry 102, Physics 202 or 102 and 207, Mathematics 213. Introduction to quantum mechanics with applications to the structure of atoms and molecules. Spectroscopy, statistical mechanics, and elementary nuclear and solid state theory. Three hours each week.

CHM 321-51, 322-51. Physical Chemistry Laboratory (1-1). Prerequisite or corequisite: Chemistry 321 and 322, respectively. Three laboratory hours each week.

CHM 325. Brief Physical Chemistry (3) Prerequisite: Chemistry 102, Physics 102 or 202, and Mathematics 205 or 211. An abbreviated course in fundamentals of physical chemistry. Normally taken concurrently with Brief Physical Chemistry Laboratory (325-51). May not be taken for credit after 321 has been passed. Three hours each week.

CHM 321-51, 322-51. Physical Chemistry Laboratory (1-1). Prerequisite or corequisite: Chemistry 321 and 322, respectively. Three laboratory hours each week.

CHM 335. Quantitative Analysis (2) Prerequisite: Chemistry 102 and 102-51. The theory of (a) gravimetric and volumetric analysis, (b) instrumental techniques, and (c) sampling sample preparation, and monitoring of air, water, etc. Normally taken concurrently with Quantitative Analysis Laboratory. Two hours each week.

CHM 335-51. Quantitative Analysis Laboratory (2) Prerequisite or corequisite: Chemistry 335. Four laboratory hours each week.

CHM 355. History and Literature of Chemistry (1) Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry. One hour each week.

CHM 377. Environmental Chemistry (3) Prerequisite: Chemistry 102. A study of chemical principles which apply to processes of environmental degradation and pollution prevention. Three hours each week.

CHM 415. Advanced Organic Chemistry (3) Prerequisite: Chemistry 312. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods. Three hours each week.

CHM 417. Medicinal Chemistry (3) Prerequisite: Chemistry 312. Systematic study of the chemistry, as well as the biological activity, or hormones, vitamins, drugs affecting the nervous system, and other miscellaneous agents. Prior Chemistry 415 or Chemistry 465 is recommended. Three hours each week. Spring 1986 and alternate years.

CHM 435. Advanced Analytical Chemistry (2) Prerequisite: Chemistry 333 or 335, 321 or 325, and their laboratories. Theory of modern analytical instrumentation and techniques. Normally taken concurrently with Advanced Analytical Chemistry Laboratory (435-51). Two hours each week.

CHM 435-51. Advanced Analytical Chemistry Laboratory (2) Prerequisite or corequisite: Chemistry 435. Four laboratory hours each week.

CHM 445. Inorganic Chemistry (3) Prerequisite: Chemistry 321 or 325. Advanced descriptive and theoretical inorganic chemistry. Three hours each week.

CHM 445-51. Inorganic Synthesis (1) Prerequisite or corequisite: Chemistry 445. Synthesis and techniques in inorganic chemistry. Normally taken concurrently with Inorganic Chemistry (445). Three laboratory hours each week.

CHM 446. Advanced Inorganic Chemistry (3) Prerequisite: Chemistry 322 and 445. Advanced topics in theoretical inorganic chemistry. Three hours each week.

CHM 465. Biochemistry (3) Prerequisite: Chemistry 312 and either 321 or 325. Study of the physical structures of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins and minerals and the chemical principles governing their biological activity. Special emphasis will be given to enzyme kinetics, solution properties of macromolecules, and the thermodynamic principles of intermediary metabolism. Three hours each week.

CHM 475. (Marine Biology 589) Chemical Oceanography (3) Prerequisite: Chemistry 102. Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week. Spring 1986 and alternate years.

CHM 476. (Marine Biology 588) Chemical Analysis of Natural Waters (2) Prerequisite: one of the following: Chemistry 333, 335, 377, or 475. Standard chemical methods will be used to analyze natural water samples, including several fresh water samples and seawater. Methods will be evaluated with respect to appropriate applications. Analyses to be studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended material, and dissolved metals. One lecture and three laboratory hours each week. Spring 1987 and alternate years.

CHM 485. Industrial Chemistry (3) Prerequisite: Chemistry 312 and either 321 or 325. The characteristics of large scale chemical processes, including materials of construction, reactor design, fluid transport, solvent recovery and reuse, quality control, and environmental impact. Specific example processes include the conversion of raw petroleum feedstocks to plastics, fibers, and fuels, and the production of ethical drugs. Three hours each week. Spring 1987 and alternate years.

CHM 491. Directed Individual Study (1-3) Prerequiste: Junior or senior standing and consent of department chairman.

CHM 495. Senior Seminar (1-3) Prerequisite: Senior standing. Discussion of selected topics. One hour each week.

CHM 499. Honors Work in Chemistry (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

PHYSICS

Dr. Clator, Dr. Davis, Dr. Haywood, Dr. H. Hernandez, Mr. Nelson, Dr. Olszewski.

Requirements for a concentration in Physics for the B.A. degree:

Core courses: Physics 201-202, 225, 260, 335, 321, 400 (1 hour), 455, 495, Mathematics 205-206 or 211-212, Chemistry 101-102 with lab or 105-106-102 with lab.

Also required are the courses in one of the following emphasis alternatives:

Education: Education-Psychology block of 31 semester hours, Biology 105, and three of the following courses: Biology 205, 206, and 207; Chemistry 311-312 with lab; Geology 101, 120, and 150. Students completing this option qualify for teacher certification in physics. By including one biology course from Biology 205, 206, and 207 and two geology courses from Geology 101, 120, and 150, students completing this option also qualify for certification in science.

Premedical Science: Biology 206, 207, and 315 and Chemistry 311-312 with lab.

General: One of the following Physics courses: 415, 445, or 491 (3 semester hours); Accounting 201-202, Computer Science 111 (with FORTRAN), Geology 101, and Statistics 215.

A "C" or better on each Physics course.

Requirements for a concentration in Physics for the B.S. degree:

Physics 201-202, 315-316, 321-322, 335, 400 (3 semester hours), 406, 421-422, 455, 495, and one of the following: 415, 435, or 445; Chemistry 101-102 with lab; Mathematics 315, 335, and one additional three semester hour Mathematics course at the 300-400 level.

A "C" or better on each Physics course.

Physics Course Descriptions

(Department of Chemical and Physical Sciences)

PHY 101-102. Elementary College Physics (4-4) Corequisite: Mathematics 111. Mechanics, heat, sound, light, electricity and magnetism, and introduction to modern physics. Three lecture and two laboratory hours each week.

PHY 105. Introductory Physics (4) Terminal course designed to cover basic principles of physics. Three lecture and two laboratory hours each week.

PHY 107. Physics of Music (4) Study of the scientific basis of music. Three lecture and two laboratory hours per week.

PHY 108. Meteorology (4) Prerequisite: Mathematics 102 or 111. A study of the principles underlying atmospheric phenomena and applications to observational techniques. Three lecture and one laboratory hour each week.

PHY 170. Photography (3) Techniques and procedures in the use of photographic materials and equipment. Two lecture and two laboratory hours each week.

PHY 201-202. General Physics (5-5) Corequisite: Mathematics 205-206 or 211-212. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radioactivity and nuclear physics. Four lecture and two laboratory hours each week.

PHY 206-207. Problems in General Physics (2-2) Prerequisite: Physics 101-102 and corequisite: Mathematics 205-206 or 211-212. Problems in general physics and their applications. Two problem sessions each week.

PHY 215-216. Electric Circuits (4-4) Corequisite: Mathematics 211. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency; phasor and two-port networks. Three lecture and three laboratory hours each week.

PHY 225. Electronics (3) Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and two laboratory hours each week.

PHY 260. Introduction to Astronomy (3) Descriptive course in principles, theories, and techniques of astronomy. Three lecture hours each week and occasional night viewing.

PHY 305. Science for Elementary Teachers (3) Open only to students concentrating in elementary education and to in-service teachers. Biological and physical science areas appropriate for inclusion in elementary schools. Three hours each week.

PHY 315-316. Electricity and Magnetism (3-3) Prerequisite: Physics 202 and corequisite: Mathematics 213. Electric and magnetic field theory; Poisson's and Laplace's equations; harmonic methods, special methods for solution of electrostatic problems, material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics. Three hours each week.

PHY 321-322. Mechanics (3-3) Prerequisite: Physics 202. Elements of Newtonian mechanics, mechanics of continuous media, Lagrange's equation, rotation of a rigid body. Three hours each week.

PHY 335. Introduction to Modern Physics (3) Prerequisite: Physics 202. Survey of modern atomic and nuclear physics, including historical development, relativity, and wave mechanics. Three hours each week.

PHY 400. Advanced Laboratory (1) (May be repeated for up to three hours credit) Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer. One hour each week.

PHY 406. Mathematical Physics (3) Prerequiste: Physics 202. Designed to provide mathematics necessary for advanced undergraduate and beginning graduate study in physical sciences and to develop a strong background for students continuing into mathematics of advanced theoretical physics. Mastery of calculus and willingness to build on this mathematical foundation are assumed. Three hours each week.

PHY 415. Solid State Physics (3) Prerequisite: Physics 335. A study of the basic properties of solids – crystal structure; mechanical, thermal and electromagnetic properties as determined by the phonon, electron, and magnon characteristics. Three hours each week.

PHY 421-422. Quantum Mechanics (3-3) Prerequisite: Physics 335 and Mathematics 315. An introduction to the basic principles of quantum mechanics. Topics include the hydrogen atom, angular momentum and spin, perturbation theory, scattering, and applications to atoms, molecules, nuclei, solids, and elementary particles. Three hours each week.

PHY 435. Nuclear Physics (3) Prerequisite: Physics 421 or consent of instructor. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators. Three hours each week.

PHY 445. Optics (3) Prerequisite: Physics 202 and Mathematics 213. Physical and geometrical optics. Huygen's principles, electromagnetic theory of light. Three hours each week.

PHY 455. Thermal Physics (3) Prerequisite: Physics 335 or consent of instructor. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics. Three hours each week.

PHY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PHY 495. Physics Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in physics.

PHY 499. Honors Work in Physics (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

COMPUTER SCIENCE

(See Mathematical Sciences)

CREATIVE ARTS

Mr. Dennis J. Sporre, *chairman.*

The Department of Creative Arts is comprised of divisions of Art, Drama, Music, and Speech Communication. The department offers concentrations leading to the B.A. degree in (1) Creative Arts in Art, Drama, and Music, and (2) Speech Communication.

ART

Ms. Conner, Mr. LeQuire, Dr. Myers.

Requirements for a concentration in Creative Arts-Art for the B.A. degree: Art 101, 102, 111, 112; either Art 211 or 212; six hours chosen from Art 201, 202, 204; three hours of three or four hundred level art history; two hours chosen from Music 361, 362, 363; three hours chosen from Drama 321, 322, 323; six hours chosen from practical and theoretical courses in Drama or Music (histories not included); twenty-four hours chosen from three studio areas. Electives chosen in consultation with the advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Art Course Descriptions

(Department of Creative Arts)

ART 101-102. Design (3-3) 101: Study of the principles of two-dimensional design and introduction to color theory. **102:** Study of the concepts of three-dimensional design and of the nature of problem solving. One lecture and six studio hours each week.

ART 111, 112. Drawing Fundamentals (3, 3) Fundamentals of drawing using various media: charcoal, pencil, ink, etc. Four studio hours each week.

ART 201. Ancient World Through Medieval Period (3) A survey of art from ancient through medieval with an emphasis on major artistic developments in their historical and cultural context from 20,000 B.C. to 1400 A.D.

ART 202. Renaissance Through Contemporary Art (3) A survey of art from the Renaissance to the present with an emphasis on major artistic developments in their historical and cultural context from 1400 A.D. to the present time.

ART 204. Survey of American Art (3) A survey of American art from Colonial times to the present, with an emphasis on major examples of architecture, painting, sculpture, graphics and the decorative arts. Three hours each week.

ART 211. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, geometric form and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week. Fall.

ART 212. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, anatomy, and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week. Spring.

ART 221-222. Beginning Ceramics (3-3) Introduction to three-dimensional form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week.

ART 231-232. Beginning Printmaking (3-3) Prerequisite: Art 101 or 111 or 112 or permission of instructor. Problems in relief and intaglio using a variety of materials. May be taken in any sequence. Six studio hours per week.

ART 241, 242. Beginning Painting (3, 3) A beginning course investigating a variety of media, techniques, and subjects. Six studio hours each week.

ART 251-252. Beginning Sculpture (3-3) Prerequisite: Art 102 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week.

ART 306. Italian Renaissance Art (3) Prerequisite: Art 201, 202 or permission of instructor. A study of the development of art in Italy, 1200-1600 A.D., with an emphasis on painting, sculpture, architecture and graphics as related to Renaissance culture.

ART 307. History of Printmaking (3) Survey of printed pictures from the 15th century to the present. An appreciation of the evolution of printmaking from its practical applications to Fine Art, including major artists as printmakers. Studio experience optional.

ART 308. 20th Century Art (3) Prerequisite: Art 201, 202, 204, or permission of instructor. A study of movements and issues in art from 1900 to the present in Europe and the United States with an emphasis on developments as they contribute to contemporary art. Painting, sculpture, architecture, graphics and other vehicles of artistic expression will be discussed as they relate to these developments.

ART 311. Intermediate Life Drawing (3) Prerequisite: Art 211, 212 or permission of instructor. Drawing from the model: structure, composition, development of personal expression. Six studio hours per week. Fall.

ART 312. Intermediate Life Drawing (3) Prerequisite: Art 211, 212 or permission of instructor. Drawing from the model: structure, anatomy, development of personal expression. Six studio hours per week. Spring.

ART 321-322. Intermediate Ceramics (3-3) Prerequisite: Art 222 or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clays and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

ART 331-332. Intermediate Printmaking (3-3) Prerequisite: Art 231-232 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen. May be taken in any sequence. Six studio hours per week.

ART 341-342. Intermediate Painting (3-3) Prerequisite: Art 101, 242 or consent of instructor. Further exploration of painting techniques and expression. Six studio hours each week.

ART 351-352. Intermediate Sculpture (3-3) Prerequisite: Art 252 or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

ART 385. Art in the Elementary School (3) Appreciation of art designed for elementary teachers, including studio work and art education theory. One lecture and three studio hours each week.

ART 387. (ANT 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the super-

vision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition and education. Three hours each week.

ART 387-51. (ANT 387-51) Museum Studies Practicum (1) Corequisite: Art 387 (Ant 387). Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ART 411. Advanced Life Drawing (3) Prerequisite: Art 311, 312 or permission of instructor. Drawing from the model: drawing as a finished product, exploration of drawing techniques. Six studio hours per week.

ART 412. Advanced Drawing (3) Prerequisite: Art 411 or permission of instructor. Drawing as a finished product, exploration of drawing techniques and subject matter. Six studio hours per week.

ART 421-422. Advanced Ceramics (3-3) Prerequisite: Art 322 or consent of instructor. Further experience in three-dimensional form and design and emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week.

ART 431-432. Advanced Printmaking (3-3) Prerequisite: Art 331 and 332 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen and collograph. May be taken in any sequence. Six studio hours each week.

ART 441-442. Advanced Painting (3-3) Prerequisite: Art 342 or consent of instructor. Emphasis on techniques and expression. Six studio hours each week.

ART 451-452. Advanced Sculpture (3-3) Prerequisite: Art 352 or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week.

ART 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

For 292 and 492, see explanation on p. 71.

DRAMA

Ms. Fitzgibbon, Dr. Rogers, Mr. Sporre, Mr. Swink, Dr. Theodore, Ms. Young.

Requirements for a concentration in Creative Arts-Drama for the B.A. degree: Drama 201, 205, 130 or 231, 307; six credits from Drama 321 or 322 or 323; three credits from Art 101 or 102 or 201 or 202 or 204; three credits from Music 105 or 115; nine credits of electives in Creative Arts outside of Drama. An option comprising one of the following also must be fulfilled. Option 1 (Acting): Drama 206, 232 (4 credits), 333 (4 credits), 355, and Communication 230. Option 2 (Directing): Drama 232 (4 credits), 306, 355, 455, 461 or 462. Option 3 (Design/Technical): Drama 202, 206, 305, 306, 405, 406. Option 4 (History and Theory): Drama 321 or 322 or 323; 345, 355, 461, 462. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Drama Course Descriptions

(Department of Creative Arts)

DRA 130. Improvisation (3) Exploration of spontaneous dramatic playing through intensive exercises and theatre games meant to generate greater individual freedom and self-discipline, as well as to employ improvisation techniques in acting to develop characterization, stage movement, and ensemble performance.

DRA 135. (Physical Education 102) Dance Techniques (1) Basic dance technique on a beginner level, including ballet, jazz, and modern dance.

DRA 136. Movement Exploration (2) Exploration of the relationship of dance to other art forms. Study through modern and creative dance techniques of the body's potential as a tool for creative expression, emphasizing the opportunity to demonstrate interrelationships in the arts through weekly choreographic assignments.

DRA 201. Technical Production I (3) Basic principles of scenic materials and equipment. Use of materials, methods of construction, and handling of scenery and properties. One lecture and six laboratory hours per week. Participation in the University Theatre productions required.

DRA 202. Technical Production II (3) Prerequisite: Drama 201 or consent of instructor. Practical training in shop organization and technical production, plus basic principles of theatrical graphics. Two lecture and four laboratory hours each week. Participation in University Theatre productions required.

DRA 205. Stage Make-up (2) Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

DRA 206. Costume History and Construction (3) An examination of major historical costume styles. The student also will learn basic costume construction techniques, applying those techniques to individual projects as well as to the costumes for departmental productions. Two lecture hours and three laboratory hours per week.

DRA 221. Introduction to the Theatre (3) Appreciation of theatre through an understanding of its artistic elements, history, dramatic literature, and audience involvement. Three hours per week.

DRA 225. History and Appreciation of Film (3) A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

DRA 231. Acting I (4) Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and 2½ laboratory hours each week.

DRA 232. Acting II (4) Prerequisite: Acting I and/or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and 2½ laboratory hours each week.

DRA 235. Dance Technique II (1) Prerequisite: Dance Technique I or equivalent and consent of instructor. Basic dance technique on an intermediate level.

DRA 305. Scenic Design (3) Prerequisite: Drama 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, techniques application, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

DRA 306. Stage Lighting (3) Prerequisite: Drama 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundamentals of electricity, lighting equipment, the use of color, and the basic principles of design. Two lecture and two laboratory hours each week. Participation in University Theatre productions required.

DRA 307. Theatre Management (3) Course focuses on various aspects of management: publicity, business management, public relations, and house management.

DRA 321, 322, 323. Theatre History (3,3,3,) 321: Pre-Greek beginnings to seventeenth century. 322: Seventeenth century to nineteenth century. 323: Late nineteenth century to the present day. Three hours each week.

DRA 333. Acting III (1-4) Prerequisite: Acting I and II and/or consent of instructor. Scene study. A contractual course with individual student commitment concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

DRA 345. Playwriting I (3) Analysis of one-act plays and their construction; the writing of an original one-act play required. Three hours each week.

DRA 355. Directing I (3) Fundamental principles of directing with emphasis on one-act productions. Three hours each week.

DRA 405. Scenic Design II (3) Prerequisite: Drama 305 or consent of instructor. An advanced approach to historical styles and special design problems, including the relationship of architecture to the mise en scene.

DRA 406. Costume Design (3) Application of the principles of theatrical design to stage costuming. Three hours per week.

DRA 425. Aesthetics of Film (3) A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

DRA 445. Playwriting II (3) Prerequisite: Drama 345 or permission of instructor. Advanced techniques of playwriting with emphasis on full length play; the writing of an original full length play. Three hours each week.

DRA 455. Directing II (3) Prerequisite: Drama 355. Advanced techniques in the direction of plays for the stage. Three hours each week.

DRA 461, 462. Seminar in Dramatic Theory (3, 3) Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present. Three hours each week.

DRA 485. Senior Project (3) Every major may choose a specific area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Creative Arts for approval prior to the semester during which the project will be attempted.

DRA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

DRA 495. Theatre Seminars (1-3)

DRA 499. Honors Work in Drama (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

MUSIC

Mr. Bongiorno, Dr. Deas, Dr. Hickman, Dr. Kechley, Dr. Martin, Ms. Mathew, Mr. McLamb.

Requirements for a Concentration in Creative Arts-Music for the B.A. degree: Students may emphasize either **General Music** or **Performance.** Core courses, common to either emphasis: Music 101, 102, 201, 202, 261, 262.

General Music: In addition to the core requirements the general music student will be required to complete three hours of Art History (201 or 202) plus three hours of Introduction to Theatre (DRA 221); 10 hours of applied music in the principal area, at least two hours at the 300 level including a public performance of at least 20 minutes; four hours of applied music in a second area; six hours of major ensemble (keyboard students may substitute up to two hours of 082 and/or 131); nine hours of Music Electives; and Recital or Thesis.

Performance: In addition to the core requirements, the student who emphasizes performance must complete an additional five hours of Music Theory (MUS 301 and choice of 302 or 303); six additional hours of Music History (MUS 361, 362, 363); 22 hours of applied music in the principal area (at least 12 hours at the 300 level). Students pursuing the composition emphasis noted below will substitute 16 hours of composition and six hours of applied music in a secondary area (at least two hours at the 300 level) for the 22 hour applied music requirement; 8 hours of major ensemble (three of these hours can be counted toward basic studies requirements); two recitals (the Junior Recital is normally a half recital); three hours from ART 201, 202, or DRA 221, (also to be counted toward basic studies requirements); and 21 hours of music electives chosen according to the following emphases:

(1) Vocal Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 271, 272, 273, 274, 379, and eight hours of free music electives.

(2) Keyboard Performance: Six hours of secondary applied music (not to include class piano); MUS 285; 275 or 276; 375 or 376; and six hours of free music electives.

(3) Keyboard Performance with Pedagogy: Three hours of secondary applied music (not to include class piano), MUS 285, 275, 276, 375, 376, two semesters of 475, and three hours of free music electives. Also, the major ensemble requirement stated above is reduced to six hours (three to be counted toward basic studies requirements) of which only two hours can be substituted by 082 or 131.

(4) Instrumental Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 371, and 12 hours of free music electives.

(5) Composition: MUS 302 or 303, MUS 306, 307, seven hours of conducting, and eight hours of free music electives. The Junior Recital is a half recital in the composer's secondary applied area. The Senior Recital is to be in composition and should include the composer as a participant.

(6) Performance-Church Music: Two hours of secondary applied (the vocalist must take two hours in piano beyond the proficiency level, the keyboard student must take at least two hours in voice and complete the sophomore level of private voice study); MUS 285; 485 (choral); 255; 355; two hours from 243, 245, 247, or 249; 377, and four hours of free music electives. (Keyboard students must take 257 as part of the electives)

A "C" or better grade must be achieved in all courses taken to meet the Creative Arts degree requirements. All Creative Arts-Music majors must pass the piano proficiency exam and the listening exams. Those who do not pass the piano proficiency examination upon entering the music program are required to take class piano until the exam is successfully completed. The student must satisfactorily meet performance seminar and recital attendance requirements.

Admission to the music program requires an audition, interview, and theory placement test.

Music Course Descriptions

(Department of Creative Arts)

MUS 082. Accompanying (1) Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Student will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

MUS 083. UNCW Chamber Singers (1) Select group drawn from the concert choir (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week.

MUS 084. Jazz Ensemble (1) Prerequisite: Consent of instructor. The study and performance of jazz techniques and interpretation of popular styles in large and/or small ensemble. Open to any student who has had instrumental experience. Participation is determined by audition at the beginning of each semester. One 2-hour rehearsal per week.

MUS 085. Wind Ensemble (1) Open to any student who has had previous training or experience in instrumental music and who has the consent of the director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 086. Concert Choir (1) Prerequisite: Auditions by director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 087. Orchestra (1) Tuesdays 7:30-9:30 p.m. Auditions by director. Study and performance of the orchestral literature performed with the UNCW/Community Orchestra which meets for a minimum of two hours per week and gives an average of four performances per year.

MUS 101. Theory I (3) Prerequisite: Placement test. Corequisite: Music 101-51. An in-depth study of the basic materials of music, including the physics of sound, time classification, notation of pitch and rhythm, intervals, scales and modes, key signatures and triads. Three hours per week.

MUS 101-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 101. Includes melodic, harmonic and rhythmic dictation, singing and performing at the keyboard materials introduced in Music 101-01. Two hours per week.

MUS 102. Theory I (3) Prerequisite: Music 101. Corequisite: Music 102-51. A study of tonality, triads in inversions, phrase structure and cadences, harmonic progression, the technique of harmonization and nonharmonic tones. Three hours per week.

MUS 102-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 102. Application through dictation, sight-singing and keyboard exercises the materials introduced in Music 102-01. Two hours per week.

MUS 105. Rudiments of Music (3) A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, Sight-Singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Three hours each week.

MUS 115. Survey of Music Literature (3) Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required. Three hours each week.

MUS 116. History of Jazz (3) A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required. Three hours each week.

MUS 117. American Music (3) A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required. Three hours each week.

MUS 118. Survey of Electronic Music (3) A non-technical survey of electronic music, analytical study of compositions from recordings, and basic compositional methods utilizing the facilities of the UNCW Electronic Music Studio. Technical knowledge of music not required.

MUS 131. Chamber Music Workshop (1) Open to any student who has had previous training and experience and who has the consent of the chairman of the department. Small instrumental and vocal ensembles. Type of group will depend upon availability of personnel and faculty instructor. Two hours per week. Accumulative credit.

MUS 133. Opera Workshop (3) Prerequisite: Music 195 (Voice) or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week.

MUS 134. Choral Workshop (3) Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Three hours each week.

MUS 141-142. Class Piano I (1-1) Prerequisite: Consent of instructor. Recommended for all students enrolled in Music Theory 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

MUS 143-144. Class Guitar (1-1) Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

MUS 146. Class Voice (1) Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

MUS 195. Lower Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 196. Lower Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 197. Lower Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 201. Theory II (3) Prerequisite: Music 102. Corequisite: Music 201-51. A study of the musical process as observed in the literature of the common practice period. Based upon both structural and functional analysis as well as problem solving and controlled composition exercises. Includes secondary dominants, chromatic approach chords and the concept of modulation. Three hours per week.

MUS 201-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 102. Corequisite Music 201. Includes melodic and rhythmic dictation, singing and memorizing various modes, scales and broken chord patterns in root position, harmonic dictation with emphasis on modulation. Two hours per week.

MUS 202. Music Theory II (3) Prerequisite: Music 201. Corequisite Music 202-51. A study of the musical process as observed in the late common practice and early twentieth century periods. The development further of the concept of modulation and chromatic harmonies and introduction to such practices as quartal and polytonal harmonies. Three hours per week.

MUS 202-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 201. Corequisite: Music 202. Continuation of Music 201-51 with an emphasis on inversions and chromatically derived patterns. Utilization of quartal and polytonal harmonies. Two hours per week.

MUS 203. Composition (1 or 3) Prerequisite: Consent of instructor. A beginning study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 218. Electronic Music Composition (2) Prerequisite: Music 118. A study of basic recording and synthesizer techniques utilizing the facilities of the UNCW Electronic Music Studio. Two hours per week.

MUS 235. Jazz Improvisation (1) Prerequisite: Music 101-102 or consent of instructor. Development of materials and practices for improvisational skills in the jazz idiom. Open to any student with instrumental experience. Two one (1) hour meetings per week. Presentation will be in both lecture and performance format.

MUS 241-242. Class Piano II (1-1) Prerequisite: Music 142 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

MUS 243-244. Class Strings (1-1) Prerequisite: Consent of instructor. Class instruction in violin, viola, cello, or string bass. Two laboratory hours each week.

MUS 245. Woodwind Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 247. Brass Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 249. Percussion Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 255. Church Music Literature (3) Prerequisite: Knowledge of music fundamentals. A survey of music literature of the western church including a study of the historical function of various musical idioms and styles.

MUS 257. Service Playing (2) Prerequisite: Permission of instructor. Practical study of service playing: organ improvisations, modulations, and related problems. Two hours per week.

MUS 261, 262. Introduction to Music History I & II (3,3) A two-semester overview of music history and literature stressing the stylistic developments of music and related social and historical events. 261: Music history and literature of the Middle Ages, Renaissance, and Baroque. 262: Music history and literature of the Classic, Romantic, and Contemporary periods. Three hours per week.

MUS 271. Italian Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of Italian diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 272. English Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of English diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours per week instruction.

MUS 273. German Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of German diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 274. French Diction for Singers (1) Prerequisite: Music major only/consent of instructor. Basic principles of French diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 275, 276. Keyboard Literature I & II (3,3) Prerequisite: One year private keyboard instruction at the college level. A survey of keyboard literature in relation to contemporary pedagogical use. Historical evolution of instrument design included. 275: Beginning and intermediate keyboard literature of the 18th, 19th and 20th centuries. 276: Advanced literature of the 18th, 19th and 20th centuries. Three hours per week.

MUS 285. Basic Conducting (3) Prerequisite: Music 102, 142. An examination of conducting techniques, score reading techniques and an understanding of terminology.

MUS 301. Form/Analysis (3) Prerequisite: Music 202. A study of forms common in Western music from 1600 to the present and the development of skills in analysis. Three hours each week.

MUS 302. Modal Counterpoint (2) Prerequisite: Music 301. A study of strict contrapuntal practice as observed in the church music of Palestrina, Lassus and other 16th century composers. Includes writing in 2, 3 and 4 "free" voices with and without text as well as 2 & 3 part canons. Techniques of melodic and countrapuntal inversion are also covered. Two hours per week.

MUS 303. Tonal Counterpoint (2) Prerequisite: Music 301. A study of contrapuntal practice as observed in the music of J. S. Bach and other 17th and 18th century composers. Includes analysis and composition of both Invention and Fugue. Also includes contrapuntal and melodic inversion. Two hours per week.

MUS 306. Orchestration (2) Prerequisite: Music 243-244, 245, 247, and 249, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music. Two hours each week.

MUS 307. Twentieth Century Idioms (2) Prerequisite: Music 301. An indepth study of musical practice from 1900 to the present based upon both structural and functional analysis as well as problem solving and controlled compositional exercises. Includes quartal harmonies, mixed meters, texture and timbre as musical parameters, indeterminacy and serialism. Two hours per week.

MUS 325. Music Education for Elementary Teachers (3) Prerequisite: Music 105 (recommended) or Music 115. Approach to the teaching of music at the elementary level, including the use of piano laboratory. Three hours each week.

MUS 326. Methods of Teaching Music in the Elementary Schools (K-6) (2) Prerequisite: Consent of instructor; open only to currently enrolled music education majors. The purpose of this course is to study the scope and goals of the elementary

music curriculum, the organization of musical content with regard to learning theories and developmental characteristics of the child, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on some of the innovative ideas in the field, including techniques developed by Orff and Kodaly. The course will also include an evaluation of music textbooks and materials for this level.

MUS 327. Methods of Teaching Music in Secondary Schools (7-12) (2) Prerequisite: Open only to currently enrolled music education majors with consent of instructor. The purpose of this course is to study the scope and goals of the secondary music curriculum, the organization of musical content with regard to learning theories and behavioral characteristics of the adolescent, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on methods for teaching music in the classroom. The course will also include an evaluation of music textbooks and materials for this level.

MUS 355. Music in Religious Institutions (3) Prerequisite: Music 255. A study of the philosophic and administrative dimensions of music in religious institutions. Topics include historical antecedents and contemporary patterns. Three hours per week.

MUS 361, 362, 363. History of Music (2,2,2) Prerequisite: Music 261, 262 and for 362 & 363, only, Music 301. 361: Stylistic development of music of the Medieval and Renaissance eras. 362: Music history and literature of the 17th and 18th centuries. 363: Music history and literature of the 19th and 20th centuries. Two hours per week.

MUS 364. Contemporary Music Literature (2) Prerequisite: Music 301 and 363. A study of music from the contemporary era.

MUS 371. Instrumental Pedagogy and Literature (2) Prerequisite: Two years of college instrumental applied music. Problems, materials, and methods in teaching instruments to private students. Two hours per week.

MUS 373. Instrumental Methods (2) Prerequisite: Consent of instructor; Music 285, 243, 245, 247, 249. Methods of teaching instrumental classes and ensembles from elementary through senior high school. Includes repertoire, marching band techniques, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship, and practical aspects of teaching instrumental music.

MUS 375. Piano Pedagogy I (3) Prerequisite: Two years private piano instruction at college level. Problems, materials, and methods in teaching beginning piano to children.

MUS 376. Piano Pedagogy II (3) Prerequisite: Two years private piano instruction at college level. Problems, materials, and methods in teaching piano to older students of high school and early college age.

MUS 377. Choral Methods (2) Prerequisite: Consent of instructor; Music 285. Methods of teaching choral ensembles from elementary through senior high school. Includes repertoire, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship and the practical aspects of teaching choral music.

MUS 379. Vocal Pedagogy and Literature (2) Prerequisite: Two years of college vocal study. Basic procedures of teaching voice. Materials for solo voice studied and performed. Two hours each week.

MUS 395. Upper Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 396. Upper Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 397. Upper Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 403. Advanced Composition (3) Prerequisite: Music 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 475. Practicum in Applied Teaching (1) Prerequisite: Music 371, or 375-376, or 379. Students will develop and implement a private studio under the guidance of a faculty member. One hour per week.

MUS 485. Advanced Conducting (2) Prerequisite: Music 285. Study in either choral or instrumental techniques. This course enables the student to work with the appropriate ensemble using selected literature, i.e., orchestral, wind ensemble or vocal literature, for the various mediums.

MUS 490. Thesis (1) A research thesis in a subject to be determined in consultation with the music faculty during the semester preceding the taking of this course.

MUS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MUS 493. Recital (1) Consent of the music faculty.

MUS 495. Seminar in Music (1-3) Prerequisite: Junior standing. Designed to deal with special subjects not considered in detail in regular course offerings. More than one topic may be taken for credit.

MUS 499. Honors Work in Music (2-3) Prerequisite: Eligibility for honors program, and junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

SPEECH COMMUNICATION

Dr. Welch, *coordinator.* Mr. Harrington, Dr. Pelose, Dr. Rohler, Dr. Tallant, Mr. Trimble, Dr. Weiss.

Requirements for a concentration in Speech Communication for the B.A. degree: Communication 105, 221, 230, 275, 327, 340, 341; Anthropology 208; English 311; Philosophy and Religion 110; Psychology 311; and six hours of Modern Language or Computer Science Language. The collateral area (18 hours) will be determined individually in consultation with the advisor. A grade of "C" or better on all required courses in the concentration.

Speech Communication Course Descriptions

(Department of Creative Arts)

COM 105. Fundamentals of Speech (3) Principles and basic skills in speaking and listening; classroom exercise and discussion. Three hours each week.

COM 116. Oral Interpretation of Literature (3) The study and analysis of literature through the medium of oral performance. Three hours each week.

COM 170. Intercollegiate Forensics (1) One hour of academic credit each semester (up to eight hours total) for participation in debate and/or individual speaking events on the Intercollegiate Forensics Team. One hour each week.

COM 210. Oral Interpretation of Children's Literature (3) Focuses on several methods of performance of children's literature. Storytelling, solo performance and group performance will be covered. Areas of emphasis will be selection of suitable material, cutting of the material and techniques of performance. Three hours each week.

COM 220. Interpersonal Communication (3) This course focuses upon the communication process in face-to-face situations. It is designed to improve the everyday communication skills of the student through a greater understanding of the interpersonal process. Emphasis is placed upon the development of interviewing techniques, information acquisition and persuasive dialogues. Three hours each week.

COM 221. Group Discussion (3) Prerequisite: Communication 105 or consent of instructor. The study of and practice in oral group methodologies, including panel, forum and symposium speaking. Three hours each week.

COM 230. Voice and Diction (3) Principles and use of the voice exercises in vocal variety, articulation and pronunciation. Three hours each week.

COM 265. Survey of Mass Communications (3) An examination of U.S. radio, television, newspaper, magazines and film. Emphasis on their development, functions, theoretical foundations, present uses, and effects. Special project required. Three hours each week.

COM 268. Broadcast Journalism (3) Prerequisite: English 102. Principles and basic skills in writing for the broadcast media; includes exercises inside and outside of classroom. Emphasis on broadcast news writing, news coverage, news editing, and news problems and potentials. Three hours each week.

COM 270. Parliamentary Procedure (1) Principles and rules governing deliberative assemblies. One hour each week.

COM 275. The Art of Persuasive Speech (3) Prerequisite: Communication 105 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways. Three hours each week.

COM 276. Debate (3) Prerequisite: Communication 105, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution. Three hours each week.

COM 290. Rhetoric of Popular Culture (3) Analysis will focus upon an understanding of the various persuasive influences inherent in modern society. Areas of emphasis will include analysis of persuasive appeals in advertising, music, art, movies, theatre, social movements, politics, literature, and sports. Three hours each week.

COM 325. Business and Professional Speaking (3) Prerequisite: Communication 105. Public speaking skills in directed experiences especially related to speech communication tasks which accompany the role of a business or professional person. Topics include the delivery of briefings, manuscript speeches, conferences, interviewing, salesmanship, use of electronic extenders and visual aids. Three hours each week.

COM 327. Organizational Communication (3) Prerequisite: Communication 105. The study of communication in organizations; theories of communication and their applications to organizations. Three hours each week.

COM 340. Communication Theory (3) Prerequisite: Communication 105 or consent of instructor. The course explores theoretical perspectives concerning how and why people communicate. Emphasis is placed on a greater understanding of the human communication process. Three hours each week.

COM 341. Rhetorical Theory (3) Prerequisites: Communication 105, Communication 340 or consent of the instructor. Introduction to the basic classical and contemporary theories of rhetoric from Plato through the present. Three hourse each week.

COM 365. The Broadcast Regulatory Process (3) Prerequisite: Communications 265, 268, or consent of instructor. Survey of broadcast history, law, politics, and regulation with emphasis on the roles of the Federal Communications Commission,the White House, Congress, courts, citizen's groups, and the broadcast industry itself in creating and enforcing broadcast regulations.

COM 415. Readers Theatre (3) Prerequisite: Communication 116. The application of oral interpretation techniques to group readings. Students will be involved in both technical and performance aspects of production. Three hours each week.

COM 421. Communication for Public Relations (3) Prerequisite: Any one of the following: Communication 265, 268, 275, 327, 340, 365, 465 or English 245. Principles of public relations, with special emphasis on those theories and skills relevant to the communication functions of businesses and non-profit organizations. Three hours each week.

COM 450. History of Rhetoric and Public Address (3) A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address. Three hours each week.

COM 465. Mass Communications in Society (3) Prerequisite: Communication 265. A seminar encompassing the development of mass communications, the obligations of the press, radio and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications. Three hours each week.

COM 467. Broadcast Advertising and Audience Analysis (3) Prerequisite: Communication 265 or consent of instructor. Broadcast advertising and audiences from a theoretical and practical perspective. Mass communication theories applied in a practical setting as students conduct a major audience analysis for a mass media organization. Includes analysis and use of survey/research methodology.

COM 485. Senior Project (3)

COM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the department chairman.

COM 495. Topical Seminar in Speech Communication (3) Prerequisite: Senior standing and consent of instructor. Special topics in Communications which are not dealt with in other courses.

COM 498. Internship in Speech Communication (3-6) Prerequisite: Permission of Speech Communication faculty and senior status. A program of work and study conducted within an agency and/or setting which provides practical experience with observation of applications of theoretical concepts in Speech Communication. Open to qualified students with permission of the Speech Communication faculty.

COM 499. Honors Work in Communication (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA

(See Creative Arts)

EARTH SCIENCES

Dr. Victor A. Zullo, *chairman.* Dr. Ainsley, Dr. Cleary, Dr. Dockal, Mr. Hall, Dr. Harris, Dr. Huntsman, Dr. Hyers, Dr. Laws, Dr. Metzger, Dr. Randall, Ms. Winslow

The Department of Earth Sciences offers concentrations in Geography and Geology which prepare the student for advanced studies or for teaching, research and technical careers available to one who holds the baccalaureate degree.

Requirements for a concentration in Geography for the B.A. degree: Core requirements: Georgraphy 110, 130, 140, 270, 320, 322, 325, 429, 495. Collateral requirements are Computer Science 111 and Statistics 215. In addition there are two options, described below, one of which a student must elect in order to complete the degree requirements. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department.

Option 1.

This option provides a broad, flexible program to meet personal educational goals and interests including careers and graduate study in geography.

(a) Physical Geography: 7 hours selected from Geography 230, 333, 335, 336 and 432.
(b) Economic and Urban Geography: 6 hours selected from Geography 312, 315 and 317.
(c) Applied Geography and Planning: 6 hours selected from Geography 372, 375 and 378.
(d) Cultural Geography: 9 hours, including 3 hours in regional geography, selected from Geography 240, 255, 282, 350, 352, 382, and 385.

Option 2.

This option is designed specifically for students interested in pursuing careers and/or graduate study in planning and applied geography.

(a) Geography 312, 317, 333 and 335.
(b) Geography 496 or 498 and 6 hours selected from Geography 372, 375, 378.
(c) 6 hours selected from Economics 105, Political Science 207, 308, and Sociology 315, 385.

Geography Course Descriptions

(Department of Earth Sciences)

GGY 110. Economic Geography (3) Human economic activities, their location and relationships to physical and economic conditions of the environment. Three hours each week.

GGY 130. Introduction to Physical Geography (4) Maps and map projections and their uses: analysis of the spatial distribution and character of environmental elements, including climate, land forms, vegetation, and soils. Three lecture and two laboratory hours each week.

GGY 140. Introduction to Human Geography (3) Concepts and methods of human geography with emphasis on current problems related to the spatial distribution of population. Three hours each week.

GGY 220. Earth Science Graphics (3) Methods of graphic expression related to natural science in general; use of various media; methods of reproducing graphic works; introduction to aerial photography interpretation and basic map use. One lecture and four laboratory hours each week.

GGY 230. Introduction to Weather and Climate (3) Examination of general climatic characteristics through space and time, especially as influenced by controls upon temperature, wind and moisture distributions, and by planetary, regional and local atmospheric disturbances. Three hours each week.

GGY 240. Population Geography (3) Prerequisite: Geography 140 or consent of instructor. A study of the spatial dimensions of population growth, density and movement and of the shifts in these patterns as they relate to changes in selected socio-economic and cultural phenomena. Three hours each week.

GGY 255. Historical Geography of the Middle East (3) Geographical, archaeological, historical and geological investigation of the physical environment and cultural landscapes that provided the settings for the evolution of the population, economics and cultures of Southwestern Asia. Three hours each week.

GGY 270. Principles of Land Use Planning (3) Prerequisite: Geography 130 and 140 or consent of instructor. Introduction to planning techniques and to planning as a profession. Classification and analysis of spatial variations in land use patterns and development processes as they relate to the physical environment and human activities. Three hours each week.

GGY 282. Geography of North Carolina (3) Prerequisite: Geography 140 or consent of instructor. A survey of the physical and cultural landscapes of North Carolina with the emphasis on an understanding of the complex geographical variety that exists within a dynamic and growing southern state. Three hours each week.

GGY 312. Geography of Transportation (3) Prerequisite: Geography 110 or consent of instructor. Study of the structural elements of transportation systems and the spatial processes associated with their development. Three hours each week.

GGY 315. Industrial Geography (3) Prerequisite: Geography 110 or credit in economics or consent of instructor. Factors underlying the distribution, development and character of manufacturing activities and industrial regions. Emphasis is placed upon location theory. Three hours each week.

GGY 317. Urban Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban development and problems in the United States. Three hours each week.

GGY 320. Elementary Cartography (3) Techniques of drafting, map projection, and map designs; methods of data representations on maps. One lecture and four laboratory hours each week.

GGY 322. Aerial Photography and Remote Sensing (3) Prerequisite: Geography 130 or Geology 101. Introduction to the use of aerial photography and other remote sensing techniques to analyze topography, geology, vegetation and culture. Two lecture and three laboratory hours each week.

GGY 325. Quantitative Methods in Earth Sciences (3) Prerequisite: Statistics 215. Use and interpretation of statistical techniques in geographic and geologic research. The course emphasizes problem identification, data collection and interpretation through assignments covering specific kinds of statistical methods. Three lecture hours each week.

GGY 333. Applied Climatology (4) Prerequisite: Geography 130 or 230 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three lecture and two laboratory hours each week.

GGY 335. Introduction to Geomorphology (4) Prerequisite: Geography 130 or Geology 101 or consent of instructor. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

GGY 336. Regional Geomorphology of North America (3) Prerequisite: Geography 335 or 130, and Geology 101, or consent of instructor. Analysis of the spatial patterns and interactions of geomorphic processes in North America. Particular emphasis is given to an examination of geomorphic provinces and analysis of regional historical geomorphology. Three lecture hours each week.

GGY 350. Political Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs. Three hours each week.

GGY 352. Historical Geography of the United States (3) Prerequisite: History 201 or Geography 140 or consent of instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time. Three hours each week.

GGY 372. Community and Regional Land Use Planning (3) Prerequisite: Geography 270. Application of planning techniques to current urban and regional land use problems. Topics include spatial structure of cities and regions and emphasis is placed upon the visual-spatial qualities of communities and regions. Three hours each week.

GGY 375. Rural Land Use Planning (3) Prerequisite: Geography 270. Concepts of planning applied to the protection of open space in the face of increasing development demands and pressures. Topics include farmland retention, landscape assessment, land trusts, preservation and scenic easements, zoning techniques and land use plans. Three hours each week.

GGY 378. Historic Preservation Planning (3) Prerequisite: Geography 270, or 352 or consent of instructor. An applied research course which deals with the procedures employed by federal, state and local agencies in locating, recording, restoring and

preserving American architectural resources and material cultural heritage. Subjects examined include survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles. Three hours each week.

GGY 382. Regional Geography of the United States (3) Prerequisite: Geography 140 or History 202 or consent of instructor. A regional analysis of physical characteristics, resource base and human geography of the United States. Three hours each week.

GGY 385. Regional Geography of Europe (3) Prerequisite: Geography 140 or History 102 or consent of instructor. A regional analysis of the physical and cultural features of Europe. Three hours each week.

GGY 429. History and Philosophy of Geography (3) Prerequisite: Senior standing in geography. Development of geographic thought and comparative evaluation of current philosophies concerning the nature of geography. Three hours each week.

GGY 432. (Marine Biology 532) Biogeography (3) Prerequisite: Senior standing in geography, geology, or biology or consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic and evolutionary events of the past. Three hours each week.

GGY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GGY 495. Senior Seminar (1-3). Prerequisite: Senior standing in geography. May be repeated one time for credit. One to three hours each week.

GGY 496. Senior Thesis (2-2) Prerequisite: Senior standing in geography. A supervised senior thesis on a topic selected by the student, thesis advisor, and thesis committee. A written thesis, completed during a two semester period, and an oral defense are required.

GGY 498. Internship (3) Prerequisite: Senior standing in geography, recommendation of advisor and consent of the geography faculty. The student works a minimum of twelve hours per week for an outside agency or individual in a position that enables the student to utilize academic training in a practical field experience. A summary paper and an oral presentation before the geography faculty are required.

GGY 499. Honors Work in Geography (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 71.

Requirements for a concentration in Geology for the B.A. degree: Geology 101, 102, 201, 210, 231, 331, 341, 391 (1-1), Geography 335, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101 (or 105, 106)-102. Mathematics 111-112 or 115, and a minimum of 7 hours selected from Biology, Chemistry, Computer Science, Geology, Geography, Mathematics or Physics. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department.

Requirements for a concentration in Geology for the B.S. degree: Geology 101, 102, 201, 202, 231, 311, 312, 331, 341, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101-102, Mathematics 211-212, Physics 201-202, and a summer field course in geology offered by another institution. For those students wishing to pursue a program emphasizing paleontology, they may substitute specific courses in biology for the physics requirement with approval of the department. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department. Students planning to attend graduate school are urged to take Computer Science 111, and French 101-102 or German 101-102.

Geology Course Descriptions

(Department of Earth Sciences)

GLY 101. Physical Geology (4) Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Field trips. Three lecture and two laboratory hours each week.

GLY 102. Historical Geology (4) Prerequisite: Geology 101. Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and two laboratory hours each week.

GLY 120. (Environmental Studies 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

GLY 131. Dinosaurs (2) Study of the Dinosaurs and other Mesozoic vertebrates as illustrations of the basic principles of vertebrate paleontology. Emphasis is placed on identification, systematics, evolution, ecology and extinction of the Dinosaurs. Two lecture hours each week.

GLY 150. Introduction to Oceanography (3) An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips. Three hours each week.

GLY 201. Mineralogy (4) Prerequisite: Geology 101; corequisite: Chemistry 101, including laboratory. Principles of chemical bonding in natural solids; crystal chemistry; physical conditions of mineral genesis; geologically significant mineral associations; crystallography; mineral identification. Required field trips. Three lecture and two laboratory hours each week. Fall.

GLY 202. Advanced Mineralogy (3) Prerequisite: Geology 201. The technique of mineral identification and analysis. Theory and application of the polarizing microscope and X-ray diffractometer. Introduction to the principles of the electron microprobe, X-ray fluorescence and atomic absorption. One lecture and four laboratory hours each week.

GLY 210. General Petrology (4) Prerequisite: Geology 201 or consent of instructor. A survey of the major igneous, sedimentary, and metamorphic rock groups. Emphasis is on classification, textural features, mode of occurrence, environments of origin and economic importance. Laboratory stresses rock identification and typical rock associations. Required field trips. Three lecture and two laboratory hours each week.

GLY 231. Invertebrate Paleontology (4) Prerequisite: Geology 102 or consent of instructor. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and three laboratory hours each week.

GLY 250. Coastal Sedimentary Environments (4) Prerequisite: Geology 101 or consent of instructor. A study of the sedimentary processes and environments of the world's coastal systems. Emphasis is placed on river deltas, estuaries, bays, salt marshes, barrier islands and associated inlets. Ice bound as well as rocky coastlines are also examined. Three lecture and two laboratory hours each week.

GLY 311. Igneous and Metamorphic Petrology (4) Prerequisite: Geology 202. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimental data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and two laboratory hours each week.

GLY 312. Sedimentary Petrology (4) Prerequisite: Geology 202. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Field trips. Three lecture and two laboratory hours each week.

GLY 331. Stratigraphy (3) Prerequisite: Geology 231. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Field trips. Two lecture and three laboratory hours each week.

GLY 332. Micropaleontology (4) Prerequisite: Geology 231 or consent of instructor. Paleobiology ang geological history of micro-organisms emphasizing the classification and systematics of major microfossil groups. Introduction to the concepts of paleoecology, paleoceanography and biostratigraphy utilizing microfossils. Three lecture and three laboratory hours each week.

GLY 341. Structural Geology (4) Prerequisite: Geology 102 and Math 111 or equivalent. Introduction to the mechanics, fabrics, and geometry of rock deformation, including stress-strain relationships, folds and folding, and faulting and fracturing of rocks. Selected regional examples introduce and test concepts and theories of orogenic rock mechanisms and tectonics. Required field trip. Three lecture and two laboratory hours each week.

GLY 391. Appalachian Geology (1) Corequisite: Geology 331 or 341. Field study of the structure, stratigraphy, rocks, and paleontology of the Paleozoic System of the Appalachian geosyncline. Introduction to sample collection, field mapping procedures, and methods of data analysis. Three field days and colloquium. Spring. (Fees)

GLY 392. Coastal Plain Geology (1) Corequisite: Geology 331. Field analysis of depositional patterns and paleontology of Cretaceous and Cenozoic units of the southeastern Atlantic Coastal Plain. Introduction to methods of litho- and biostratigraphic correlation, sampling techniques, and sample analysis. Three field days and colloquium. Fall. (Fees)

GLY 393. Coastal Processes (1) Prerequisite: Geology 101. Field examination of the depositional and erosional processes and materials in the marshes, estuaries and barrier islands of the Carolinas and Georgia. Introduction to the basic techniques used by coastal researchers in field measurements, sample retrieval and data analysis. Three field days and colloquium. Spring. (Fees)

GLY 394. Piedmont Geology (1) Prerequisite: Geology 102. Corequisite: Geology 201 or 341, or consent of instructor. Field examination of the petrology, degree(s) of metamorphism, and structural style(s) of the various belts of rock in the crystalline Appalachians. Observations permit regional tectonic syntheses for the Piedmont. Three field days and colloquium. Fall. (Fees)

GLY 431. Paleoecology (3) Prerequisite: Geology 331 or consent of instructor. Principles of ecological faunal analysis as primarily applied to the marine fossil record. Emphasizes the integration of form and function, taphonomy, community development through time and sedimentology/stratigraphy as a synthetic approach to paleoenvironmental, paleobiological and evolutionary analyses. Applications to biostratigraphy are considered. Required field trips. Three lecture hours each week.

GLY 440. Regional Geology of North America (3) Prerequisite: Geology 331, 341, and consent of instructor. A survey of the dynamic evolution of North America. The rocks, structures, natural resources, and tectonic histories of the different regions of North America are examined, along with theories of their formation and eventual unification. The Precambrian shield, the classical Appalachians, and the Cordillera are included. Three hours each week.

GLY 450. Marine Geology (4) Prerequisite: Geology 101, Biology 362, or consent of instructor. Topography, sediments, structure and geologic history of the marine and estuarine environment. Required field trips. Three lecture and three laboratory hours each week.

GLY 471. Sedimentary Geochemistry (3) Prerequisite: Chemistry 102 and one of the following: GLY 210, GLY 312, CHM 377, CHM 475, CHM 476. Application of geochemistry to the formation and diagenesis of sediments and sedimentary rocks. Examination of mineral precipitation, sediment cementation, metasomatism and chemical erosion. Three hours each week.

GLY 480. Advanced Topics in Geology (1-3) Prerequisite: Junior standing in department and consent of instructor. Study of selected topics in geology that are not considered in detail in regular course offerings. Examples of specific topics are plate tectonics, seismology, depositional systems, groundwater hydrology, geochronology, and advanced paleontology. Taught on demand. More than one topic may be taken for credit (maximum 6 hours).

GLY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GLY 495. Senior Seminar (1-3) Prerequisite: Senior standing with a concentration in Geology or consent of instructor. May be repeated one time for credit. One to three hours per week.

GLY 499. Honors Work in Geology (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 71.

ENGINEERING

(See Pre-Professional Programs for Requirements)

Engineering Course Descriptions

(Department of Earth Sciences)

EGN 111. Engineering Graphics (3) Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fasteners, dimensioning, freehand sketching; axonometric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laboratory hours each week.

EGN 211. Land Surveying (3) Prerequisite: Mathematics 111 or consent of instructor. The elements of plane surveying; basic instrument nomenclature, use and adjustment, methods of surveying plots of land using the metes and bounds system; and introduction to the public land surveys; methods of basic surveying computation involving horizontal, vertical and angular measurements; legal aspects of surveying (legal term definitions, recording processes, federal, state and local laws and codes); basic methods of subdivision. Two hours of lecture and three hours of laboratory each week.

EGN 212. Route Surveying (3) Prerequisite: Engineering 211 or consent of instructor. The elements of plane route surveying to include the operations involved in horizontally and vertically aligning roadways (highways and railroads) and the computations involved in the various operations; horizontal and vertical curves; procedures peculiar to roads, canals, transmission lines, pipelines, storm and sanitary sewers, urban utility surveys, along with the incidental storm drainage design and layout for certain roadway situations. Two hours of lecture and three hours of laboratory each week.

EGN 221. Geodetic Surveying (3) Prerequisite: Engineering 211. The application of many of the principles of geodesy for the purpose of transitioning from surveys on a plane to surveys on an oblate spheroid (Earth). The use of spherical trigonometry and some of the calculus in geodetic surveys; the N.C. State Plane Coordinate System; some experience in electronic distance measuring; methods of computation and field methods of triangulation, trilateration and traverse; astronomical observations and computations involved to determine latitude, longitude and azimuth (direction) from one point to another. Two hours of lecture and three hours of laboratory each week.

EGN 222. Topographic Surveying and Mapping (3) Prerequisite: Engineering 211. The field and office processes necessary to prepare topographic and hydrographic maps

of a specified area. The many methods of data acquisition over land and water areas are examined and practiced during the course to include: radial line surveys, x.y.z. coordinate surveys, aerial surveys and the plane table. The actual preparation of a "live" map from field survey to finished inked map is a primary part of the course. Two hours of lecture and three hours of laboratory each week.

ENGLISH

Dr. Byington, *chairman.* Dr. Clifford, Dr. Collier, Dr. Corbett, Dr. Dodson, Dr. Ellis, Mr. Evans, Mr. Fort, Mrs. Foushee, Dr. Holtzman, Mr. Long, Mr. McCall, Dr. MacLennan, Dr. Parish, Mrs. Pearsall, Dr. Rosselot, Dr. D. Seiple, Dr. J. Seiple, Dr. Stokes, Dr. Sullivan, Dr. Veit, Dr. Walker, Mrs. Wasson, Dr. Waxman, Dr. Wentworth.

Requirements for a concentration in English for the B.A. degree: English 211, 212, and 30 hours at the 300-400 level, including one American literature course, one Shakespeare course, one course in the English language, one course in expository writing, English 460, and five electives.

Requirements for a concentration in English for the B.A. degree with Teacher Certification: English 211, 212, and 30 hours at the 300-400 level, including one American literature course, one Shakespeare course, English 304, English 305, English 306, English 460, and four electives.

Both programs require 15 hours of collaterals selected from the following: Art 201, 202, 203, 306; Communication 105, 465; Drama 221, 222, 225; Music 115, 116; or any courses offered by the Departments of Modern Languages (except French 105 and Spanish 105 and 205), History, and Philosophy and Religion.

A "C" or better average is required in English courses.

English Course Descriptions

ENG 100. Foundations of Composition (0) Intensive writing practice and instruction, for students needing preparation in the basics of composition. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.

ENG 101. Composition (3) An introduction to college-level composition. Extensive practice in the techniques of invention, development, organization, editing, and revision, with emphasis on narrative, descriptive, and expository forms appropriate to everyday personal, business, and academic writing. Three hours each week.

ENG 102. Composition (3) Prerequisite: English 101. College-level composition. Continued practice in the composing process, with empahsis on argumentation and research. Frequent projects in gathering, analyzing, and documenting information from outside sources. Three hours each week.

ENG 110. Introduction to Literature (3) Study of three literary genres – poetry, drama, and short fiction – in terms of basic components and structures. Three hours each week.

ENG 201. Intermediate College Writing (3) Prerequisite: English 102. Instruction in composing strategies to strengthen organizational, syntactical, and editing skills. Written projects relate to the academic interests of each student. Three hours each week.

ENG 205-206. Masterpieces of World Literature (3-3). Prerequisite: English 102. Representative works of world literature (excluding British and American authors) emphasizing, but not limited to, the western literary tradition. ENG 205: Works from ancient times to about 1500; ENG 206: 1500 to the twentieth century.

ENG 207. Creative Writing (Fiction) (3) Prerequisite: English 102. Instruction in writing fiction, including critical evaluation by instructor and class of student's orginal works. Students also critique and relate to their own work the fiction of relevant professional authors. Three hours each week.

ENG 208. Creative Writing (Poetry) (3) Prerequisite: English 102. Instruction in writing poetry, including critical evaluation by instructor and class of student's original works. Students also critique and relate to their own work the poetry of relevant professional poets. Three hours each week.

ENG 210. Mythology (3) The major mythological systems of Western society – Greek, Roman, and Norse. Mythology of other parts of the world and related material are also considered. Three hours each week.

ENG 211, 212. Great British Writers (3, 3) Prerequisite: English 102, 211: Writings before 1800; 212: Writings since 1800. Three hours each week.

ENG 213-214. Introduction to American Literature (3-3) Prerequisite: English 102. 213: The literature of Colonial and Early America from 1607 to 1820 and of the Romantic era (1820-1855). 214: The literature of American Realism (1855-1900) and of the Twentieth Century (1900-1960).

EGN 219. General Fiction (3) A thematic approach to fiction for students who enjoy extensive reading of current novels.

ENG 220. The Supernatural in Literature (3) Types of supernatural phenomena in literature. Emphasis on British and American fiction of the nineteenth and twentieth centuries. Three hours each week.

ENG 222. Literature of the Sea (3) A survey of nautical literature, both fiction and nonfiction, with a general introduction to nautical language and sailing terms. Extensive reading in the literature.

ENG 224. Detective Fiction (3) Extensive reading in major authors from Poe to the present, with some discussion of developments in the mystery form.

ENG 230. Women in Literature (3) Twentieth-century literature by and about women. Focus on changes in images and roles of women. Includes fiction, poetry, and essays. Three hours each week.

ENG 245. Journalism (3) Prerequisite: English 101. Introduction to news writing. Includes news stories, editorials, feature articles and reviews. Three hours each week.

ENG 250. Introduction to Folklore (3) A definition and survey of the most common forms of folklore, including folk speech, narratives, music, art, customs and beliefs, with an emphasis upon the relevance of these materials to the study of literature, history, education, art, the social sciences and other disciplines.

ENG 301. Scientific Writing (3) Prerequisite: English 102. Techniques and structure in scientific writing, emphasizing abstracts, proposals, progress reports, final reports, oral reports, journal articles, and professional papers.

ENG 304. Writing for Teachers (3) Prerequisite: English 102. Instruction in writing for teachers of all school subjects (K-12). Forms of exposition and persuasion appropriate to teachers; consideration given to learning and composition theory, the composing process, theories of rhetoric, evalaution, writing development. Three hours each week.

ENG 305. Advanced Grammer (3) Prerequisite: English 102. Various current theories and approaches to understanding the structure of English. Three hours each week.

ENG 306. Advanced Composition (3) Prerequisite: English 102. Instruction in writing the objective report, descriptive analysis, extended definition, explication, and critical analysis, among other expository types; consideration of writing problems, strategies, and styles. Three hours each week.

ENG 307. Advanced Creative Writing: Fiction (3) Prerequisite: English 207. Instruction in advanced techniques of writing fiction. Further development of the creative process involving fiction. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 308. Advanced Creative Writing: Poetry (3) Prerequisite: English 208. Instruction in advanced techniques of writing poetry. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 310. Theory and Practice of Editing (3) Prerequisite: English 102. An advanced writing course, focusing on revising, editing and copy editing. Techniques and strategies for getting prose ready for publication will be explored. Extensive practice in editing professional and student samples. Three hours each week.

ENG 311. Introduction to Linguistics (3) Prerequisite: English 102. An introductory course in linguistics. Topics include phonetics; the phonological, semantic, and syntactic organization of language; language acquisition by children; language change; theories of language origin; and animal "languages." Three hours each week.

ENG 312. Semantics: Language and Meaning (3) Prerequisite: English 102. The study of language as it affects our thinking and behavior; language and prejudice; the language of advertising, propaganda, science, and poetry; slanting, euphemisms, jargon, connotations, abstraction. Three hours each week.

ENG 313. History of the English Language (3) Prerequisite: English 102. The development of the English language from Old English to the present; changes in sounds, vocabulary, syntax, meaning, and spelling; formation of American dialects. Three hours each week.

ENG 315. Twentieth Century European Literature (3) Prerequisite: English 102. Study of such writers as Joyce, Mann, Camus, Kafka, Tolstoy and Conrad. Three hours each week.

ENG 316. Romantic Literature (3) Prerequisite: English 102. Major and minor poetry and prose, 1783-1837. Emphasis on new trends in poetry, the role of the artist, and Romantic critical theory. Three hours each week.

ENG 317. Victorian Literature (3) Prerequisite: English 102. Poetry and prose from 1837-1901. Artistic achievements and literary movements. Intellectual and social problems of the Victorians reflected in their literature. Three hours each week.

ENG 318. The English Novel (3) Prerequisite: English 102, the study of representative classic novels from Fielding's *Tom Jones* (1749) to Bennett's *the Old Wives' Tale* (1915). Includes overview of fiction preceding the first English novel. Three hours each week.

ENG 320. Early American Literature (3) Prerequisite: English 102. Poetry and prose from 1620-1920, emphasizing three dominant literary attitudes – Puritanism, Neo-Classicism, and Pre-Romanticism – in works by Bradford, Franklin, Irving, Bryant, and Cooper, among others. Three hours each week.

ENG 321. American Romanticism (3) Prerequisite: English 102. Poetry and prose from 1820-1855, including Whitman's free verse. Emerson's essays, Thoreau's *Walden*, and short fiction by Poe, Hawthorne, and Melville. Three hours each week.

ENG 322. American Realism (3) Prerequisite: English 102. Realism and naturalism in literature from 1855-1900, emphasizing Dickinson's poetry and fiction by Twain, Howells, James, and Crane. Three hours each week.

ENG 325. Twentieth Century American Fiction (3) Prerequisite: English 102. Short stories and novels from 1900 to 1950. Three hours each week.

ENG 326. Southern American Literature (3) Prerequisite: English 102. Study of Southern fiction, emphasizing nineteenth century southwestern humor sketches and twentieth century short stories and novels by Faulkner, Welty, Caldwell, and others. Three hours each week.

ENG 327. North Carolina Literature (3) Prerequisite: English 102. Interpretive study of writers such as Charles Chesnutt, O. Henry, Paul Green, Thomas Wolfe, Randall Jarrell, Robert Ruark, A.R. Ammons, Doris Betts, and Reynolds Price. Three hours each week.

ENG 330. Interpretation of Poetry (3) Prerequisite: English 102. Study of traditional and contemporary poets and poetic forms with emphasis on how to read and interpret poetry. Three hours each week.

ENG 333. Science Fiction (3) Prerequisite: English 102. Study of major science fiction writers such as Wells, Asimov, Clarke, Heinlein, LeGuin, Bester, Miller, and Bradbury. Three hours each week.

ENG 334. Ethnic Literature of the United States (3) Prerequisite: English 102. Literature of various American ethnic groups, with emphasis on Afro-American, Native American, Chicano, and Asian American literature. Three hours each week.

ENG 335. Major Forms of Drama (3) Prerequisite: English 102. Development of tragedy, comedy, and modern forms; includes the work of dramatists such as Aeschylus,

Aristophanes, Jonson, Marlowe, Moliere, Congreve, Racine, Ibsen, Chekov, Strindberg, O'Neill, and Williams, with attention to historical background and dramatic criticism. Three hours each week.

ENG 336. The Short Story (3) Prerequisite: English 102. Analysis and interpretation. Three hours each week.

ENG 339. Modern British and American Drama (3) Prerequisite: English 102. Representative plays by such dramatists as Shaw, Yeates, Galsworthy, O'Casey, Maugham, O'Neill, Hellman, Odets, Williams, and Saroyan, with attention to themes and techniques reflecting the social, political, and philosophical concerns of the twentieth century. Three hours each week.

ENG 341. The Nineteenth Century British Novel (3) Prerequisite: English 102. Study of the novel as a form, illustrated by nineteenth century novels ranging from Dicken's *Dombey and Son* to Hardy's *Tess of the d'Urbevilles.* Three hours each week.

ENG 345. Literature for Youthful Readers (3) Prerequisite: English 102. Study of folklore, fantasy, contemporary realistic fiction, biography, non-fiction, and poetry, designed for teachers (4-9) and parents. Three hours each week.

ENG 351. Shakespeare: The Comedies (3) Prerequisite: English 102. Emphasis is on dramatic literary qualities as well as interpretation of the plays. Usually seven to nine plays are studied. Three hours each week.

ENG 352. Shakespeare: The Tragedies (3) Prerequisite: English 102. Emphasis is on dramatic literary qualities as well as interpretation of the plays. Usually seven to nine plays are studied. Three hours each week.

ENG 353. Shakespeare: The Histories (3) Prerequisite: English 102. Emphasis is on dramatic literary qualities as well as interpretation of the plays. Usually seven to nine plays are studied. Three hours each week.

ENG 355. The Literature of Medieval England (3) Prerequisite: English 102. A survey of works written in England between 500 and 1500 A.D., exclusive of Chaucer. Genres to be studied include chronicle, biography, epic, romance, lyric, elegy, dream vision, and drama. Three hours each week.

ENG 380. Religion in Modern Literature (3) Prerequisite: English 102. Religious perspectives in modern literature, including such writers as Hopkins, Eliot, Kafka, Tate, Fry, Jeffers, Greene, and Malamud.

ENG 385. Soviet Russian Literature (in translation) (3) Prerequisite: English 102. Interpretation of Russian literature since the Revolution (1917), emphasizing the effects of politics on that literature. Studies such writers as Bulgakov, Pasternak, and Solzhenitsyn. Three hours each week.

ENG 412. Prose and Poetry of the English Renaissance (3) Prerequisite: English 102. Prose, poetry and drama of the English Renaissance, poetry from Skelton to Jonson, prose from More to Bacon, drama from Kyd to Shirley. Three hours each week.

ENG 415. The Eighteenth Century (3) Prerequisite: English 102. Major literary trends of the eighteenth century: neoclassical poetry and satire, the rise of the periodical

and the novel, the shift to Romanticism. Includes Restoration poetry and drama. Three hours each week.

ENG 426. The American Novel (3) Prerequisite: English 102. Survey of the development of the novel from 1798 to 1900. Representative works by Hawthorne, Cooper, Twain, James, Crane, and Dreiser, among others. Three hours each week.

ENG 430. Modern Poetry (3) Prerequisite: English 102. Twentieth century British and American poets. Major trends in poetry from the Imagists to the present. Three hours each week.

ENG 435. Literature Since 1945 (3) Prerequisite: English 102. Intensive reading of literature written since the close of World War II. Works will cover all genres and will include writers of various nationalities, although emphasis will be on British and American authors.

ENG 455. Chaucer (3) Prerequisite: English 102. Study of the major works including the dream visions, *Troilus and Criseyde,* and *The Canterbury Tales.* Three hours each week.

ENG 456. Milton (3) Prerequisite: English 102. Three hours each week.

ENG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ENG 495. Seminar (1-3) Prerequisite: English 102 and junior or senior standing. Intensive study of a genre, author, period, or special topic.

ENG 499. Honors Work in English (2-3) Prerequisite: Junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

ENVIRONMENTAL STUDIES

(Interdepartmental)

Dr. Merritt, *advisor.* Participating disciplines: Biology, Chemistry, Earth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, and Sociology.

Requirements for a concentration in Environmental Studies for the B.A. degree:
Core: (1) Environmental Studies 195, 495; Statistics 205 or 215, and Computer Science 111 or 121. (2) One course from each of four disciplines, selected from: Chemistry 335, 377; Physics 105; Biology 205, 206; Geology 101, 120; Geography 135. (3) One course from each of three disciplines, selected from: Political Science 304, 308; Anthropology 309; Psychology 370 (EVS 370); Economics 325 (EVS 325), 338.

Specialization: A disciplinary concentration requiring a minimum of 20 hours chosen from the approved list of courses in one of the following: Biology, Chemistry, Earth Sciences, Economics, Managerial Science, Marine Science, Mathematical Sciences, Physics, Political Science, Psychology, Sociology.

Approved courses for each discipline are listed below. Courses taken to fulfill core requirements may not count toward the specialization. A "C" or better average on courses taken in the area of specialization is required.

BIOLOGY: BIO 208, 316, 335 with lab, 345 or 347 or 355, 356, 365, 366, 375, 425, 440, 465, 466, 470, 475, 480, 491.

CHEMISTRY: CHM 311-312 with labs, 315-316, 321 with lab or 325 with lab, 335 with lab, 377 with lab, 435 with lab, 445, 465, 475, 476, 485, 491 (environmental research project).

EARTH SCIENCES: (Geology emphasis) GLY 101, 102, 120, 201, 210, 250, 331, 341, 391. (Geography emphasis): GGY 110, 130, 140, 270, 320, 322, 325, 335, 372, 375. (Marine Science emphasis): GLY 150, 250, 391, 450; GGY 230, 322, 333, 335, 432.

ECONOMICS: ECN 320 or 321, 322, 326, 324 or 327, 426, 427, 428, 495; FIN 331.

MANAGERIAL SCIENCE: BUS 303, 304, 310, 355, 356, 347, 358, 461, 462; MKT 340.

MARINE SCIENCE: GLY 150, 450; GGY 333, 432; BIO 208, 345, 362, 365 or 481, 366, 458, 462, 468, 472; CHM 475.

MATHEMATICAL SCIENCES: MAT 231, 315, 325, 335, 421, 423, 425, 428; STT 262, 362, 410; CSC 420.

PHYSICS: PHY 201-202 (corequisite MAT 205-206), 225, 260, 321, 335, 455, 491 (environmental research project); PHY 170 is recommended as an elective.

POLITICAL SCIENCE: PLS 111, 210, 211, 304, 307, 308, 309, 405, 406.

PSYCHOLOGY: PSY 336, 355, 365, 370, 410, 412, 456, 457, 465.

SOCIOLOGY: ANT 205, 206, 207, 302, 304, 305, 309, 322; SOC 230, 305, 315, 316, 385.

Environmental Studies Course Descriptions

(Interdepartmental)

EVS 120. (Geology 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

EVS 195. Introduction to Environmental Studies (3) Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems. Three hours each week.

EVS 228. (Mathematics 228) Mathematical Modeling with Applications to Environmental Problems (3) Prerequisites: MAT 112 or 115, CSC 111, any Statistics course. An introductory treatment of mathematical and computer modeling techniques which have application to environmental problems of an ecological, biological, social, economic, political and behavioral nature. Models to be examined will be both deterministic and stochastic and will include graph and network models, Markov processes, linear programming, Monte Carlo techniques, simulation, and game theoretic models. Group work will be especially encouraged.

EVS 316. (Sociology 316) Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on social evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and related configuration of human communities. Three hours each week.

EVS 325. (Economics 325) Environmental Economics (3) Prerequisite: Economics 125 or 221 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives. Three hours each week.

EVS 370. (Psychology 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior effects of noxious factors in the environment, the psychology of enviornmental design, and the formation and change of attitudes about the environment. Three hours each week.

EVS 490. Senior Project (1-6) Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Enviornmental Studies field, and the preparation of a written report on the findings.

EVS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the Environmental Studies advisor.

EVS 495. Seminar in Environmental Studies (3) Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format.

EVS 499. Honors Work in Environmental Studies (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292, and 492, see explanation on p. 71.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HEALTH, PHYSICAL EDUCATION AND RECREATION

Dr. Charles Lewis, *chairman*, Mr. D. Allen, Dr. F. D. Allen, Dr. T. E. Allen, Mr. Brooks, Mr. Chapman, Miss Chistoph, Mr. Ellington, Mr. Gibson, Dr. Gladwell, Miss Greer, Mr. Guthrie, Dr. Hatcher, Dr. Hollifield, Mr. Honeycutt, Mr. Lane, Mrs. J. Lewis, Mr. Middleswarth, Dr. A. Miller, Dr. D. Miller, Mr. Scalf, Dr. Skalko, Mr. Tribbett, Dr. Wolff.

Requirements for a concentration in Health and Physical Education for the B.A. degree: Physical Education 101, 105, 200 series* (six hours from numbers 1-8 listed below and two additional hours), 201, 216, 217, 235, 301, 305, 320, 340, 349, 355, 360, 386, 415, 420, 435. Required collaterals: Education and Psychology courses required for teacher certification. A "C" or better grade in all required Physical Education, Education and Psychology courses. Students are certified in Physical Education. Students may qualify for add-on certification in health by completing the following additional courses: PED 205, 207, 234.

*Students must complete 200- aquatics *or* satisfy the aquatics competency test.

Physical Education Course Descriptions

(Department of Health, Physical Education and Recreation)

PED 101. Foundations of Physical Activity (2) Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

PED 102. Physical Education Activity (1) Prerequisite: Physical Education 101 or equivalent. Student may accumulate up to 7 hours credit in Physical Education 102, but is limited to one hour per semester. Three hours each week.

PED 103. Physical Education Activity—Program of Outdoor Pursuits (3) Prerequisite: Physical Education 101 or equivalent. Study of and participation in the skills and

knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area, only once.)

PED 105. Individual Well-Being (3) Major health problems of the day and how they relate to the individual. Three hours each week.

PED 200. Sports Skills (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities and to provide practical experience in the development of instructional materials. Each skills course meets four hours each week for one-half semester.

1. Basketball (1)
2. Dance (1)
3. Gymnastics (1)
4. Soccer (1)
5. Softball (1)
6. Tennis (1)
7. Track and Field (1)
8. Volleyball (1)
9. Archery (1)
10. Aquatics (1)
11. Badminton (1)
12. Field Hockey (1)
13. Football (1)
14. Golf (1)
15. Outdoor Adventure Sports (1)
16. Racquetball/Handball (1)
17. Wrestling (1)

PED 201. First Aid, Safety, and Cardio-Pulmonary Resuscitation (2) A certification course for American Red Cross First Aid and Cardio-Pulmonary Resuscitation. The class will meet for two lecture hours and one lab hour each week.

PED 205. Reproduction and Sexuality (3) Prerequisite: Physical Education 105. Emphasizes the anatomy and physiology of reproduction, conception, prenatal growth and parturition; relevant issues pertaining to human sexuality, childbearing, and sexual diseases. Three hours each week.

PED 207. Nutrition (3) The main focus of this course will be the application of the principles of nutrition as related to health, various levels of wellness, and practices of health care. Emphasis on basics of sound nutrition, requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads and weight control. Three hours each week.

PED 216. (Biology 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three lab hours each week.

PED 217. (Biology 217) Human Anatomy and Physiology II (3) The study of the human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

PED 234. Principles of Health Education (3) An introduction to the principles of health education planning, organization, and evaluation with emphasis on the school health program. The role of the health educator will be examined with respect to health behaviors, attitudes, and problems. Three hours each week.

PED 235. Principles of Health and Physical Education (3) Introduction to the objectives, history, philosophies, trends, and professionalism of health and physical education. Three hours each week.

PED 236. Athletic Officiating (3) Rules, officiating techniques, and problems arising in officiating with emphasis on football, basketball, baseball, volleyball, and tennis.

PED 301. Prevention, Treatment, and Rehabilitation of Athletic Injuries (3) Prerequisite: Physical Education 216. A basic course in the management of athletic injuries. Three hours each week.

PED 304. Health and Safety Education, Grades K-9 (3) The scope, development and procedures of health education as it relates to the student, health services and the healthful school environment. Emphasis upon the human sexuality and the teacher's responsibility for first aid and safety education in the school environment. Three hours each week.

PED 305. Curriculum Methods in Health (3) The scope, development and procedures of health education as it relates to the student, health services, and the healthful school environment. Emphasis upon instructional methodology appropriate for health teaching. Includes practicum in teaching. Three hours each week.

PED 320. Methods of Teaching Motor Activity (3) Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicium in teaching. Three hours each week.

PED 335. Readings in Physical Education (3) A comprehensive review of literature in physical education and related areas. Three hours each week.

PED 336. An Approach to Coaching (3) The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature. Three hours each week.

PED 340. Kinesiology (3) Prerequisite: Physical Education 216. Study of neuromuscular and mechanical principles of human motion, with applications being made to movement problems most often found in physical education and sports skills. Three hours each week.

PED 349. (Biology 349) Applied Physiology of Exercise (4) Prerequisite: Physical Education 216 or Biology 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

PED 355. Tests and Measurements in Physical Education (3) Use and interpretation of elementary statistical techniques for evaluation and application of tests in physical education; review of current tests in motor ability, physical fitness, classification, sport skills, and knowledge. Three hours each week.

PED 360. Motor Learning (3) An introduction to the principles of motor learning, this course is concerned with the analysis and application of physiological and psychological principles related to the learning and performance of motor skills. Two lecture and one laboratory hours each week.

PED 386. Physical Education in the Primary Grades (K-3) (3) A study of the theory, techniques and methods of developing and implementing a total program of physical education for children in grades K-3. Emphasis on the "movement approach" to learning fundamental motor skills, equipment construction, rhythms and dance, stunts and tumbling, classroom games, and other activities basic to the K-3 program. Three hours each week.

PED 387. Physical Education in the Intermediate Grades 4-9 (3) Methods and materials for developing and conducting a yearly program of physical education for children in grades 4-9. Emphasis on refinement of sports skills through lead-up games, relays and other games of low organization, including activities in gymnastics, dance and fitness development. Three hours each week.

PED 415. Adapted Physical Education (3) Prerequisite: Physical Education 216 and junior or senior standing. Problems relating to the physiological and kinesiological needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he or she is capable. Two lecture and two laboratory hours each week.

PED 416. Laboratory Techniques and Research Methods in Exercise Physiology (3) Prerequisite: Physical Education 349 and consent of instructor. An in-depth study of human physiological adaptation to exercise and training. Emphasis on circulatory hemodynamics, respiratory function, thermal regulation, and blood chemistry during work. Primarily a laboratory experience. Three hours each week.

PED 420. Teaching Physical Education (2) Prerequisite: Physical Education 320. (PED 420 must be taken before Education 408 and 409). Individualized, supervised experience in teaching. Experience complemented with weekly seminar on contemporary problems.

PED 421-422-423-424-425-426. Methods of Coaching (2) Emphasis on strategy, fundamentals, techniques, training and related duties. Two hours each week.

421	Baseball	424	Track and Field
422	Basketball	425	Soccer
423	Football	426	Volleyball

PED 435. Organization and Administration of Health and Physical Education (3) Prerequisite: Junior or senior standing. Analysis of problems involved in planning, organizing, and directing health and physical education programs. Three hours each week.

PED 436. Intramurals (3) Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems. Three hours each week.

PED 440. Selected Topics in Physical Education (3) Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education. Three hours each week.

PED 455. Advanced Tests and Measurements in Physical Education (3) Prerequisite: Physical Education 355. Statistical techniques as applied to research in physical educa-

tion; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics. Three hours each week.

PED 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PED 499. Honors Work in Physical Education (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Requirements for a concentration in Parks and Recreation Management for the B.A. degree:

Core Courses: Recreation 265, 266, 268, 298, 360, 365, 368, 450, 465, 469, 498.

Commercial Recreation Option: Recreation 350, 351, 366, 495. Required collaterals (15 hours): Accounting 201, 202, Business 355, Finance 335, Marketing 340.

Outdoor Recreation Option: Recreation 271, 366, 470. Required collaterals (12 hours): Biology 206 and two of the following: 356, 366, 456, 475.

Therapeutic Recreation Option: Recreation 369, 370, 467, 468; Physical Education 216, 349. Required collaterals (12 hours): Education 260; Psy 347; Sociology 215. A grade of "C" or better on all required Recreation and Physical Education courses.

Recreation Course Descriptions

(Department of Health, Physical Education and Recreation)

REC 265. Introduction to Recreation and Parks (3) The scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services. This course is a prerequisite for all other courses in recreation. Three hours each week.

REC 266. Program Planning for Recreation and Parks (3) Prerequisite: Recreation 265. An introduction to programming for recreation and parks, including the major areas of recreation, planning principles, objectives and evaluation. Program factors, such as scheduling, personnel, facilities, equipment, etc., will be considered. Three hours each week.

REC 268. Social Recreation Leadership (3) Prerequisite: Recreation 265. An introduction to methods and materials used in social recreation leadership in various settings. In addition to leadership in political subdivision settings, emphasis will be placed on social recreation leadership for special populations and for private and voluntary agencies. Three hours each week.

REC 271. Camp Leadership and Management (3) Prerequisite: Recreation 265 or consent of instructor. Study of the segment of park recreation programs involved with current camp practices, philosophy, leadership and management. Three hours each week.

REC 298. Practicum in Recreation (3) Prerequisite: Recreation 265. Supervised experience in recreation and/or park setting. Will include administrative, supervisory, program leadership training in a recreation setting. Recreation problems in low income areas will be examined along with leadership training in special activities and programs. Three hours each week.

REC 350. Recreation and Commercial Enterprise (3) Identification, development, operation and impact of profit-oriented recreation enterprises. Investigation of feasibility studies, sources of technical assistance, financing, facility planning and development, marketing and managerial requirements. Three hours each week.

REC 351. Travel and Tourism (3) An introduction to the commercial area of the leisure field which is concerned with travel and tourism. Three hours each week.

REC 360. Outdoor Recreation (3) Prerequisite: Recreation 265. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation in these areas. Three hours each week.

REC 365. Administration of Recreation and Parks (3) Prerequisite: Recreation 266 and 298. Administrative practices related to recreation and parks services, including budget preparation; legal aspects of recreation and park services; fees and charges; public relations; recruiting; selecting and training personnel; personnel practices, etc. Three hours each week.

REC 366. Water-Related Recreation and Park Facilities and Programs (3) Prerequisite: Recreation 265. Principles and procedures of developing recreation facilities for water-related activities, such as pools, marinas, lake facilities, etc., and water-related programs, such as scuba diving, swimming, skiing, etc. Three hours each week.

REC 367. The Arts and Recreation (3) Prerequisite: Recreation 265. Administrative problems involved in organizing quality cultural arts in recreation and parks departments and other leisure services agencies. Areas to be examined include financing, personnel, facilities, and equipment. Funding possibilities and relationships between the National Endowment for the Arts, State Arts Councils, Local Arts Councils, and Recreation and Parks Departments will also be studied. Three hours each week.

REC 368. Introduction to Therapeutic Recreation and Special Populations (3) Prerequisite: Recreation 265 or consent of instructor. The recreation and parks program for individuals and groups who are ill, handicapped, aged, or in other special groups conducted by tax-supported, voluntary, or private agencies found in the community, hospitals, penal institutions, or other special residences. Three hours each week.

REC 369. Therapeutic Recreation for the Aging (3) Prerequisite: Recreation 368. To acquaint the student with the special wants and needs of the elderly; to provide insight into the physical, mental, social, and emotional problems of the aged. To make the student aware of the important role recreation plays in the lives of the aged. Three hours each week.

REC 370. Adaptive Activities and Facilities for Therapeutic Recreation (3) Prerequisite: Recreation 368. To introduce the student to procedures and methods of adapting recreational facilities, programs and activities to meet the needs of the handicapped. Three hours each week.

REC 450. Conflict Resolution in Recreational Leadership (3) Prerequisite: Recreation 265. An experimental approach to the study of conflict resolution in recreation leadership and management. Three hours each week.

REC 465. Planning of Recreation and Park Areas and Facilities (3) Prerequisite: Recreation 365. Study of planning standards and techniques will be considered. Standards for master plans will also be included. Students will develop plans for a recreation area and/or park as part of this course. Three hours each week.

REC 467. Leisure Education in Therapeutic Recreation (3) Prerequisite: Recreation 368. An overview of the leisure education process as an aspect of therapeutic recreation service delivery. The course encompasses a review of leisure education and strategies for the development, implementation, and evaluation of leisure education programs for persons with disabilities. Three hours each week.

REC 468. Therapeutic Recreation: Program Planning and Implementation (3) Prerequisite: Recreation 368. Advanced level course in programming and program implementation for individuals who are disabled or in other special population groups. Emphasis on sources of funding, community awareness and successful programming techniques. Three hours each week.

REC 469. Research Methods and Practices in Recreation and Parks (3) Prerequisite: Recreation 365. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will be undertaken.

REC 470. Outdoor Recreation Management (3) Prerequisite: Recreation 360. Advanced level course in giving in-depth exposure to management techniques necessary for the administration of major outdoor recreation areas including national park areas, national forest preserves, state parks, county park systems, municipal park systems and commercial areas such as marinas and camp sites. Emphasis on budgeting, personnel management, facility planning and design. Three hours each week.

REC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

REC 495. Seminar in Recreation (1-3) Prerequisite: Recreation 365 or consent of instructor. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

REC 498. Parks and Recreation Internship (6) Prerequisite: Recreation 365. A progression of professional field experiences relating theory to practical experience. Work experiences involving program planning and administrative procedures in county, municipal, institutional and voluntary settings.

REC 499. Honors Work in Recreation (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

HISTORY

Dr. McLaurin, *chairman.* Mr. W. Allen, Dr. Berkeley, Dr. Fink, Dr. Haley, Dr. Kinzer, Dr. McGuire, Dr. Moseley, Dr. Schneider, Dr. Toplin, Dr. Usilton, Ms. Walker, Dr. Watson.

Requirements for a concentration in History for the B.A. degree: History 101, 102, 201, 202; an additional 24 hours in History at the 300-400 level with a minimum grade of "C" (and an overall "C" average in courses taken within the department). Students may take three hours at the 200 level in addition to History 201 and 202, and are required to take at least three hours at the 400 level. Upper level work should encompass a broad range rather than specialization within one area of history, and students are expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: English, Modern Languages, Philosophy and Religion, Anthropology, Economics, Geography, Political Science and Sociology. History majors working toward certification in Social Studies for secondary school teaching must complete a minimum of 21 hours in Anthropology, Economics, Geography, Political Science and Sociology with courses in at least 3 areas.

History Course Descriptions

HST 101, 102. Western Civilization (3,3) 101: History of Civilization to 1650. 102: History of Civilization from 1650 to the present. Three hours each week.

HST 201, 202. American History (3,3) 201: United States to 1865. 202: United States from 1865 to present. Three hours each week.

HST 237. Women in Modern America (3) A broad survey of the female experience in the twentieth century. This course focuses on three areas which affect the lives of modern women: work, politics and sexuality. Utilizing a comparative model, it explores similarities and differences between the first and second woman's movement, the sexual revolutions of the 1920s and 1960s, and the changing nature of women's work in modern and "post-modern" society. Three hours each week.

HST 247. History of the American Frontier (3) Prerequisite: History 201-202 or consent of instructor. Westward movement of U.S. population from Atlantic to Pacific. Emphasis on trans-Mississippi West, from mid-18th century to the 1890's when free lands disappeared. Includes frontier relations with French, Dutch, English, Spanish, Mexicans, Canadians, and Russians; Indian Wars; territorial acquisitions; Manifest Destiny; revolutions in Western agriculture and communications. Three hours each week.

HST 261. Afro-American History (3) A concise survey of the major themes and events in the history of black Americans from the colonial period to the present. Three hours each week.

HST 271. The Sea in History (3) Prerequisite: History 101-102 or consent of instructor. The history of mankind's interaction with the sea, focusing on its importance for resources, trade and transport, exploration, and warfare. Three hours each week.

HST 273. Evolution of Warfare (3) Prerequisite: History 101-102 or consent of instructor. The development of war from ancient times to the present, emphasizing its effect upon society. Three hours each week.

HST 275. History of Science Since 1500 (3) An introduction to the history of the major developments in western science from the scientific revolution to the present, including an examination of both the origins of scientific discoveries and their impact on society. Three hours each week.

HST 300. The American Military Experience (3) Prerequisite: History 201-202 or consent of instructor. A survey of the American military experience from the colonial period to the present with emphasis on the wars of America, the evolution and development of military policy, strategy, tactics, and technology; and the relationship of military affairs to the political, social, and economic institutions of America. Three hours each week.

HST 305. The Ancient Near East (3) Prerequisite: History 101-102 or consent of instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations. Three hours each week.

HST 306. Ancient Greece and Rome (3) Prerequisite: History 101-102 or consent of instructor. A study of the civilizations of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana. Three hours each week.

HST 311, 312. History of England (3,3) Prerequisite: History 101-102 or consent of instructor. 311: From the Roman invasion to the Wars of the Roses. 312: From King Henry VIII to the twilight of the British Empire. Three hours each week.

HST 315. History of Ireland (3) Prerequisite: History 101-102 or consent of instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the 19th and 20th centuries. Three hours each week.

HST 316. British Empire and Commonwealth (3) Prerequisite: History 101-102 or consent of instructor. A consideration of the British Empire, evolution of the Commonwealth and the emergence of additional post-World War II areas of independence. Three hours each week.

HST 321. History of Modern France (3) Prerequisite: History 101-102 or consent of instructor. History of France from the French Revolution and Napoleon through the political, economic and social developments of the nineteenth century to the World Wars and colonial wars of the twentieth century. Three hours each week.

HST 323. History of Modern Germany (3) Prerequisite: History 101-102 or consent of instructor. Study of German nationalism. German unification, the Bismarckian empire, Hitler's Third Reich, and the two Germanies since World War II. Three hours each week.

HST 325, 326. History of Russia (3,3) Prerequisite: History 101-102 or consent of instructor. 325: To the Bolshevik Revolution. 326: From the Bolshevik Revolution to the present. Three hours each week.

HST 327. Modern Israel (3) Prerequisite: History 102 or consent of instructor. The origins of the modern state of Israel: the history of Zionism, the Holocaust, and Great Power Diplomacy; evolution of Israel since 1948; political, social, economic, cultural, intellectual, scientific, and technological development; the Arab-Jewish conflict; and Israeli democracy and world politics. Three hours each week.

HST 328. European Social History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. The lives of ordinary people in different regions of Europe, under feudal, monarchial, capitalist, and Marxist societies; the impact of climate, geography, language, religion, education, and work on individuals, families, social groups, and nations. Three hours each week.

HST 329. European Intellectual History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. A survey of the main currents of European thought and their relation to European society in general from the Scientific Revolution to the present. Three hours each week.

HST 330. Womanhood in America: Family, Work and Community Life (3) Prerequisite: History 201-202 or consent of instructor. An examination of American women and women's roles from the colonial period to the present. Three hours each week.

HST 331. American Urban History (3) Prerequisite: History 201-202 or consent of instructor. The transition in America from a pre-industrial rural society to an industrial urban society. This course explores the effect urbanization had upon America's social, political and economic institution and concludes with an examination of how the "revolution" in transportation and technology shaped the design of American cities. Three hours each week.

HST 333. American Social History (3) Prerequisite: History 201-202 or consent of instructor. The impact of social change on American life from colonial times to the present. An examination of changing concepts of ethnicity and racial identification, the growth of religious movements, the effect of industrialization on family life, the impact of urbanization on crime and violence, and the influence of movies and television on mass behavior. Three hours each week.

HST 335. Diplomatic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. American diplomatic activities and foreign relations since 1775. Three hours each week.

HST 336. Constitutional History of the United States (3) Prerequisite: History 201-202 or consent of instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life. Three hours each week.

HST 337. History of American Thought (3) Prerequisite: History 201-202 or consent of instructor. American thought from the colonial period to the present with emphasis on those ideas having lasting influence on American institutions. Three hours each week.

HST 339. Economic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy. Three hours each week.

HST 341. North Carolina, 1524 to 1835 (3) Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the colonial and federal periods to the Constitution of 1835. Three hours each week.

HST 342. North Carolina, 1835 to the Present (3) Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries. Three hours each week.

HST 346. The Old South (3) Prerequisite: History 201-202 or consent of instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South. Three hours each week.

HST 347. The New South (3) Prerequisite: History 201-202 or consent of instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism. Three hours each week.

HST 351. History of Canada (3) Prerequisite: History 101-102 or History 201-202 or consent of instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations. Three hours each week.

HST 365. History of Modern East Asia (3) Prerequisite: History 101-102 or consent of instructor. A survey of modern east Asian history from the mid-nineteenth century to the present with emphasis on the Asian response to western imperialism, institutional continuity and change, international relations, and movements toward independence and modernization. The course focuses on China, Japan and Korea with secondary attention to Southeast Asia in the post-World War II era. Three hours each week.

HST 368. Latin American History (3) Prerequisite: An American or Western Civilization survey course or consent of instructor. The development of South America, Central America, and the Caribbean from the time of the pre-Conquest civilizations to the present. Three hours each week.

HST 371. History of Africa (3) Prerequisite: History 101-102 or consent of instructor. Historical survey of African cultures with emphasis on the establishment of colonial empires, Africa under colonial rule, and modern African independence movements. Three hours each week.

HST 378. (GGY 378) Historic Preservation Planning (3) An applied research course which deals with the procedures employed by federal, state, and local agencies in locating, recording, restoring, and preserving American architectural heritage and material cultural resources. Subjects examined include: survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles.

HST 403. Medieval Civilization (3) Prerequisite: History 101-102 or consent of instructor. A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period. Three hours each week.

HST 405. Political History of the Middle Ages (3) Prerequisite: History 101-102 or consent of instructor. A study of the political development of medieval Europe from the decline of the Roman Empire in the West to the emergence of the modern period. Three hours each week.

HST 407. Europe in the Age of the Renaissance (3) Prerequisite: History 101-102 or consent of instructor. Political, economic and social changes during the Renaissance, with special attention to the artistic and intellectual achievements of the age. Three hours each week.

HST 409. Europe in the Age of the Reformation (3) Prerequisite: History 101-102 or consent of instructor. Causes and development of the Protestant Revolution and the Catholic Reformation with examination of the impact of these movements on the political, economic and social institutions of early modern Europe. Three hours each week.

HST 411. Europe: From Monarchy to Revolution (3) Prerequisite: History 101-102 or consent of instructor. Modern Europe from the rise of absolute kings in the seventeenth century to the defeat of the Emperor Napoleon. Emphasis is placed on the wars to gain control of Europe and colonial empire, the development of capitalist finance and a global economy, and the decline of aristocracy, climaxing in the French Revolution and the age of Napoleon. Three hours each week.

HST 413. Europe: The Age of Industry and Empire (3) Prerequisite: History 101-102 or consent of instructor. The origins and development of the industrial revolution in Europe; its effect on politics, population, urbanization and social class consciousness, the establishment of modern colonial empires in the nineteenth century and their place in the world economic order. Three hours each week.

HST 415. Europe and the Struggle for World Mastery (3) Prerequisite: History 101-102 or consent of instructor. The rivalry of Europe's great powers leading to World Wars I and II: the causes, events, and results of those global conflicts; the ensuing political revolutions in the inter-war period; anticipations of decline of the European empires; the spread of democracy and self-determination to certain areas; and European cultural and scientific development in the first half of the twentieth century. Three hours each week.

HST 417. Europe Since 1945 (3) Prerequisite: History 101-102 or consent of instructor. The revival of Europe after the Nazi period and its division by the Cold War; political, social, economic developments on both sides of the "Iron Curtain," decolonialization of Europe's empires; movements for political and economic integration; continuing revolutionary currents; Europe's place in contemporary world politics. Three hours each week.

HST 441. Colonial History of the U.S. (3) Prerequisite: History 201-202 or consent of instructor. Formation and growth of American colonies to the conclusion of the French and Indian War (1763). Three hours each week.

HST 443. The American Revolution and the Formation of the United States, 1763-1800 (3) Prerequisite: History 201-202 or consent of instructor. Organization of the British Empire, events preceding the Revolution, the war for independence, Confederation era, drafting and ratification of the federal Constitution, politics of the new nation. Three hours each week.

HST 445. The Early United States Republic (3) Prerequisite: History 201-202 or consent of instructor. Era from inauguration of Thomas Jefferson through Jacksonian democracy to the advent of the American Civil War. Three hours each week.

HST 447. The Civil War and Reconstruction (3) Prerequisite: History 201-202 or consent of instructor. The American Civil War and Reconstruction of the South through 1877. Three hours each week.

HST 449. Robber Barons and Reformers, the U.S., 1877-1917 (3) Prerequisite: History 201-202 or consent of instructor. The rise of American industry and the Populist-Progressive response to Urbanization and Industrialization. Three hours each week.

HST 451. Twentieth Century America (3) Prerequisite: History 201-202 or consent of instructor. A study of the United States from 1917 to 1950 with emphasis upon World

War I, the Roaring Twenties, Depression and New Deal, World War II, and the origins of the Cold War. Three hours each week.

HST 452. America Since 1950 (3) Prerequisite: History 202 or consent of instructor. Developments in American politics, cultural life, civil rights and foreign policy from the time of the Truman Administration to the present, including the Cold War, Korea, the Vietnam War, Watergate, the energy crisis, the nuclear arms race, feminism, and the "Me Decade." Three hours each week.

HIS 480. Topics in Afro-American History (3) Prerequisite: History 201, 202, 261 or consent of instructor. An intensive historical study of selected themes and events in the history of Afro-Americans from the origins of the Atlantic slave trade to the present. Examples of specific topics are: Slavery in the Americas, Blacks and the American Military Tradition, Black Folklore, and The Harlem Renaissance and Biographies of Great Afro-American Leaders. Three hours each week.

HST 482. Community Studies (3) Prerequisite: History 201-202 or consent of instructor. Provides an introduction to the methodological and practical application of community studies. Topics include: oral history, folklore, ethnography, museum and archival collection and management and historic preservation. Students will select a research project in cooperation with one of the local museums, historical societies, the public library or another governmental agency. Three hours each week.

HST 489. Historiography (3) Prerequisite: History 101, 102, or 201, 202 or consent of instructor. Three hours each week.

HST 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Students should have a 2.0 grade point average.

HST 495. Seminar (3) Prerequisite: History 101, 102, or 201, 202 as appropriate or consent of instructor. Intensive study of historical topics not regularly covered in other courses.

HST 499. Honors Work in History (2-3) Prerequisite: Senior standing. Consent of instructor or department chairman. Individual study for honors students.

MARINE BIOLOGY

(See Biological Sciences)

MATHEMATICAL SCIENCES

Dr. Smith, *chairman.* Dr. Berman, Dr. J. Brown, Mr. T. Brown, Dr. Dankel, Dr. Etheridge, Dr. Fair, Dr. Frierson, Dr. Greim, Dr. Gurganus, Dr. Herbst, Dr. Hernandez, Dr. Jambor, Dr. Karlof, Dr. Lugo, Mr. Lupton, Dr. McLaurin, Dr. Mueller-Roemer, Dr. Nelson, Dr. Norris, Dr. Russell, Dr. Saksena, Dr. Spackman.

Requirements for a concentration in Computer Science for the B.S. degree: (See also the admission statement in the Degree Requirements section of the Catalogue.)

Core requirements: Computer Science 121, 122, 231, 241, 242, 332, 334, 360; Mathematics 211, 212, 335; Statistics 262, 362. In addition to the core requirements there

are three options below, one of which a student must complete in order to fulfill the degree requirements. In general, enough latitude is allowed in each to accommodate a "double major" with mathematics or business if the student wishes.

Scientific: Computer Science 325, 425, 460; Mathematics 213, 315; Physics 201, 202; and two courses selected from Computer Science 420, Mathematics 421, 423, and 465.

Systems: Computer Science 325, 342, 410, 442, 460; Mathematics 213, 336; Physics 201, 202.

Business: Computer Science 455; six additional hours at the 300 or 400 level in Computer Science, Mathematics or Statistics approved by the advisor; Accounting 201, 203; Economics 221, 222; Business 314, 355; Finance 335; Marketing 340.

A quality point average of (C) 2.0 or better on all Computer Science courses numbered 200 or higher is required.

Note: Students interested in the degree program in Computer Science are encouraged to begin their mathematics study with Calculus I (MAT 211). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with MAT 115 or MAT 111-112, as appropriate. Students who place into MAT 212 are advised to take the Advanced Placement Test to receive college credit for MAT 211.

Computer Science Course Descriptions

(Department of Mathematical Sciences)

CSC 105. Survey of Computer Applications (2) An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library. Two hours each week.

CSC 107. Programming Laboratory—SNOBOL (1) Prerequisite: Computer Science 105 or consent of instructor. Elementary programming techniques for character-string processing and text editing. Emphasis will be placed on the pattern matching facilities of SNOBOL. Two hours each week.

CSC 111. Introduction to Computer Programming Using FORTRAN (3) Prerequisite or corequisite: Mathematics 111 or 115. Algorithms and computer systems, data representation, survey of computer applications, elementary programming techniques in FORTRAN, debugging and verification of programs. Two lecture and two laboratory hours each week.

CSC 121. Introduction to Computer Science I (3) Prerequisite: Mathematics 111 or Mathematics 115, or equivalent. Problem solving methods and algorithms in a mod-

ern high-level programming language. Introduces one or more programming environments. Emphasis on programming style and the design, coding, and testing of complete programs. A grade of "C" or better is required for taking any course for which Computer Science 121 is prerequisite. Three lecture and one laboratory hour each week.

CSC 122. Introduction to Computer Science II (3) Prerequisite: Computer Science 121. Continuation of Computer Science 121 with emphasis on character and string processing, elementary data structures, computer graphics, recursion, and use of software tools. A grade of "C" or better is required for taking any course for which Computer Science 122 is prerequisite. Three lecture and one laboratory hour each week.

CSC 125. Language Laboratory–FORTRAN (1) Prerequisite: Computer Science 121. Elementary and intermediate programming techniques in FORTRAN. Computer solution to numeric problems. No credit after completion of Computer Science 111. Two hours each week.

CSC 126. Language Laboratory–PL/1 (1) Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in PL/1. Computer solution to numeric and non-numeric problems. Two hours each week.

CSC 127. Language Laboratory–COBOL (1) Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in COBOL. Computer solution to business oriented problems. Two hours each week.

CSC 128. Interactive Personal Computing (1) Prerequisite: Computer Science 111 or 121. Elementary programming techniques using interactive services. The use of personal computers. Two hours each week.

CSC 207. Language Processing (3) Prerequisite: Computer Science 107. The role of computer as tools in linguistic studies; literary applications of computing: verbal indexes, concordances, authorship controversies; computational linguistics; algorithms for manipulating character strings using the SNOBOL programming language. Three hours each week.

CSC 231. (Mathematics 231) Discrete Structures (3) Corequisite: Computer Science 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours each week.

CSC 241. Introduction to Computer Systems & Assembly Languages (3) Prerequisite: Computer Science 121. Introduction to computer structure. Registers, machine instructions and formats; number and character representation; execution control and addressing techniques. Basic input-output programming; files; procedures, segmentation, and linkage; recursion and re-entrancy; floating-point and string operations. Symbolic and machine-level debugging. Three hours each week.

CSC 242. Digital Logic and Computer Organization (3) Prerequisite: Computer Science 231 and 241. Study of computer system organization. Combinational and sequential circuit analysis and synthesis; medium and large-scale integrated circuits. Register-transfer language and microprogramming; instruction fetch and execution; flow of

control. Input-output, controllers, interrupts, communications and codes. Introduction to computer networks. Three hours each week.

CSC 305. Computer Graphics (3) Prerequisite: Computer Science 121 and Mathematics 213. Display memory generation of points, vectors, etc. Interactive versus passive graphics. Analog storage of images on microfilm, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies. Three hours each week.

CSC 325. (Mathematics 325) Numerical Algorithms (3) Prerequisite: Computer Science 111 or 121, Mathematics 212. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equation, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

CSC 332. Data Structures (3) Prerequisite: Computer Science 122 and 231. Study of basic data structures and their applications. Lists and trees; graph algorithms; internal and external sort and search techniques; hashing; analysis and design of efficient algorithms; file processing techniques. Three hours each week.

CSC 334. Programming Languages (3) Prerequisite: Computer Science 332. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures. Three hours each week.

CSC 342. Operating Systems (3) Prerequisites: Computer Science 242 and 334. Study of supervisory programs. System services and file systems; CPU scheduling; memory management; virtual memory; disk scheduling. Deadlock characterization, prevention, and avoidance; concurrent processes; semaphores; critical sections; snychronization. Distributed systems and communication protocols. Three hours each week.

CSC 360. Formal Languages and Computability I (3) Prerequisite: Computer Science 332. An introduction to theoretical computer science. Topics include regular expressions and finite state concepts; basic automata theory; formal grammars and languages; computability; Turing machines; elementary recursive function theory. Three hours each week.

CSC 365. Switching Theory (3) Prerequisite: Computer Science 231. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes. Three hours each week.

CSC 410. Compiler Construction (3) Prerequisite: Computer Science 360. Review of program language structures, translation, loading, execution, and storage allocation.

Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping. Three hours each week.

CSC 420. Simulation Techniques (3) Prerequisite: Computer Science 231 and Statistics 362. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data-generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation. Three hours each week.

CSC 425. (Mathematics 425) Numerical Analysis (3) Prerequisite: Mathematics 315, 335, Computer Science 325. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

CSC 442. Advanced Computer Organization (3) Prerequisite: Computer Science 342. Advanced topics in computer organization and architecture. Readings from the literature contrasting alternative organization schemes as they affect system development. Seminar format. Three hours each week.

CSC 450. Software Engineering (3) Prerequisite: Computer Science 332. Study of the design and production of large and small software systems. Topics include systems engineering, software life-cycle and characterization; use of software tools. Three hours each week.

CSC 455. Data Base Management Systems (3) Prerequisite: Computer Science 332. Introduction to data base concepts, data independence, logical and physical views of data base systems. Data models: hierarchial, network, and relational. Data description languages, query functions, relational algebra. Three hours each week.

CSC 460. Formal Languages and Computability II (3) Prerequisite: Computer Science 360. Advanced topics in theoretical computer science. Theory of computation; languages and syntatics analysis; computational complexity and NP-completeness. Three hours each week.

CSC 475. Topics in Computer Science (3) Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses. Three hours each week.

CSC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

CSC 495. Seminar in Computer Science (1) Prerequisite: Junior or senior standing and consent of instructor.

CSC 499. Honors Work in Computer Science (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 71.

Requirements for a concentration in Mathematics:

I. **B.A. degree with teacher certification in Mathematics:** Mathematics 115, 211-212-213, 275, 335, 336, 345, 346, 411, and one additional 300-400 level Mathematics course; Computer Science 111 or 121; Statistics 262 and 362; Physics 201-202; and Education and Psychology courses required for teacher certification.

II. **B.A. degree in Mathematics:** Mathematics 115, 211-212-213, 275, 335, 336, 411, 495, and three additional 300-400 level Mathematics courses; Computer Science 111 or 121; Statistics 262 and 362; Physics 201-202; and two 300-400 level collateral courses chosen from fields in which Mathematics is applied.

III. **B.S. degree in Mathematics (applied):** Mathematics 115, 211-212-213, 275, 315, 325, 335, 411-412, 428 and two courses chosen from Mathematics 421, 423, 465; Computer Science 111 or 121; Statistics 262 and 362; Physics 201-202; and three 300-400 level collateral courses chosen from a single discipline different from Mathematics (e.g., Computer Science, Chemistry, Environmental Studies, Statistics). This program is recommended for students preparing for a field requiring an enthusiasm for the development and utilization of mathematical models and applications.

IV. **B.S. degree in Mathematics:** Mathematics 115, 211-212-213, 275, 315, 335, 336, 411-412, 495, and three additional 300-400 level Mathematics courses; Computer Science 111 or 121; Statistics 262 and 362; Physics 201-202; and three 300-400 level collateral courses. This program is recommended for students preparing for graduate study or desiring an especially strong scientific and Mathematics background.

A "C" (2.0) or better average is required on all Mathematics courses at the 300-400 level.

Note 1: Collateral courses required in the four programs in Mathematics must be chosen from departmentally approved courses which, together with the student's Mathematics courses, comprise a coherent program. Normally a proposed program of study should be submitted to the department for approval prior to the beginning of the student's junior year.

Note 2: Even though MAT 115 is listed as a required course in the degree programs in Mathematics, the requirement is not rigid since initial placement in Mathematics courses is based on high school background. Students with less high school Mathematics preparation than is needed for MAT 115 should take MAT 111-112 instead. Students with stronger Mathematics preparation should place immediately into MAT 211, or possibly MAT 212. However, students placing into MAT 212 are encouraged to take the Advanced Placement Test in order to receive college credit for MAT 211.

Mathematics Course Descriptions

(Department of Mathematical Sciences)

In general, Mathematics is sequential in nature. Therefore, successful mastery of each course in sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are MAT 111-112, MAT 111-205, MAT 111-112-205, MAT 115-205, MAT 111-112-211-212-213, MAT 115-211-212-213.

MAT 100. Foundations of Algebra (0) Designed primarily for students not prepared for Mathematics 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

MAT 101-102. College Mathematics for The General Student (3-3) A survey of mathematical ways of thinking designed for the general student. Not intended as preparation for further mathematics courses. Cannot be substituted for MAT 111, 112, or 115. Emphasis on concepts and applications rather than on manipulative skills. Introduces logic, number systems, algebra, geometry, probability, statistics, computers, calculus and the history of mathematics. Three hours each week.

MAT 111. Precalculus I (3) Prerequisite: Satisfactory performance on mathematics placement test. A preparatory course for further mathematics courses. Equations and inequalities; polynomial, exponential and logarithmic functions; graphs; systems of equations and inequalities. Three hours each week.

MAT 112. Precalculus II (3) Prerequisite: Mathematics 111 or equivalent or satisfactory performance on mathematics placement exam. Topics from trigonometry and algebra. Includes trigonometric functions, identities and equations; zeros of polynomials; mathematical induction; and sequences. Three hours each week.

MAT 115. Elementary Mathematical Analysis (3) Prerequisite: Satisfactory performance on a mathematics placement test. (This is usually equivalent to an SAT Score above 500 in math, at least a B average in Algebra I and II, Geometry, Advanced Algebra and Trigonometry.) A one-semester treatment of the topics listed under Mathematics 111 and Mathematics 112. Credit will not be given for Mathematics 115 after taking Mathematics 111 or Mathematics 112. Three hours each week.

MAT 141-142. Mathematics for the Elementary Teacher (3-3) (Designed for students majoring in elementary education.) The real number system and related operations, units of measurement, graphs and data analysis, geometry, logic and sets, an introduction to calculators and computers. Three hours each week.

MAT 205-206. Basic Calculus with Applications (3-3) Prerequisite: Mathematics 111 or 115 for 205; Mathematics 112 or 115 and 205 for 206. Differentiation and integration of algebraic and certain transcendental functions, partial differentiation, sequences and series. Greater emphasis is placed on techniques and applications than on theory and derivations. This sequence is not intended for students who need mathematics beyond calculus. Three hours each week.

MAT 211-212-213. The Calculus with Analytic Geometry (4-4-4) Prerequisite: Mathematics 112 or 115 or equivalent. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications, equations of curves including the conic sections; transcendental functions, polar coordinates and parametric equations; infinite sequences and series; solid analytic geometry, partial derivatives; multiple integrals. Three hours lecture and two hours laboratory each week.

MAT 228. (Environmental Studies 228) Mathematical Modeling with Applications to Environmental Problems (3) Prerequisite: Mathematics 112 or 115, Computer Science 111, any Statistics course. An introductory treatment of mathematical and computer modeling techniques which have application to environmental problems of an ecological, biological, social, economic, political and behavioral nature. Models to be examined will be both deterministic and stochastic and will include graph and network models. Markov processes, linear programming, Monte Carlo techniques, simulation, and game theoretic models. Group work will be especially encouraged.

MAT 231. (Computer Science 231) Discrete Structures (3) Corequisite: Computer Science 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours a week.

MAT 275. Axiomatic Systems (3) Prerequisite: Mathematics 211. An introductory treatment of propositional and predicate logic and methods of proof. Elementary set theory, relations, functions and topics from axiomatic systems. Precision in the use of mathematics as a language and rigor in proofs are emphasized. Students will present and discuss appropriate material to gain experience in communicating mathematics. Three hours each week.

MAT 315. Differential Equations (3) Prerequisite: Mathematics 213. First order equations with variable separable, exact equations. Euler's method of approximate solution, linear equations of first order, applications, linear equations of higher order with constant coefficients, solutions by repeated linear first order equations, variation of parameters, undetermined scaling variables, applications to networks and dynamical systems, introduction to series-solutions. Three hours each week.

MAT 316. Introduction to Vector Analysis (3) Prerequisite: Mathematics 213. Addition of vectors and operations with scalars and vectors; scalar, vector and triple products; vector and scalar derivatives; line, surface and volume integrals; theorems of Gauss, Green and Stokes. Three hours each week.

MAT 325. (Computer Science 325) Numerical Algorithms (3) Prerequisite: Computer Science 111 or 121, Mathematics 212. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

MAT 335. Linear Algebra and Matrices (3) Prerequisite: Mathematics 212. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications. Three hours each week.

MAT 336. Modern Algebra (3) Prerequisite: Mathematics 275, 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings. Three hours each week.

MAT 345. Modern College Geometry (3) Prerequisite: Mathematics 275 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries. Three hours each week.

MAT 346. Historical Development of Mathematics (3) Corequisite: Mathematics 275 or consent of instructor. Development of mathematics from earliest systems to present century. Personalities involved with the contributions of each. A problem-study approach to give the student some training in research. Three hours each week.

MAT 411-412. Advanced Calculus (3-3) Prerequisite: Mathematics 213 and 275. Advanced study of convergence, continuity, differentiation, and integration in R and R^n; infinite series. Three hours each week.

MAT 415. Introduction to Complex Variables (3) Prerequisite: Mathematics 411. Complex numbers, complex plane arguments and roots, conjugate coordinates, some definitions, the Cauchy-Riemann equations. Riemann surfaces, integration of analytic functions, Taylor series, Laurent series, the residue theorem. Three hours each week.

MAT 421. Continuous Mathematical Models (3) Prerequisite: Mathematics 315, Mathematics 335 and Mathematics 411 or Physics 406. Emphasis on the interplay between representative mathematical concepts and selected scientific models. Possible mathematical topics include partial differential equations, Fourier analysis, calculus of variations, operator theory, perturbation theory, tensor analysis, stability theory, integral equations, and potential theory. Possible areas of application include classical, fluid, continuous, celestial, and quantum mechanics, wave propagation, and diffusion. Three hours each week.

MAT 423. Discrete Mathematical Models (3) Prerequisite: Mathematics 335. Topics chosen from linear, integer, non-linear, and dynamic programming, classical optimization problems, game theory, network theory, introductory combinatorial mathematics, theory of graphs, and design of experiments. Three hours each week.

MAT 425. (Computer Science 425) Numerical Analysis (3) Prerequisite: Mathematics 315, 325, and 335. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

MAT 428. Projects in Mathematical Modeling (3) Prerequisite: Two of Mathematics 421, 423, 465. Techniques of problem recognition and formulation, and mathematical solution and interpretation of results. Each student will construct a mathematical model

under the supervision of the Applied Mathematics Committee and report on the investigation in written and oral form. Seminar format.

MAT 465. (Statistics 465) Stochastic Mathematical Models (3) Prerequisite: Mathematics 213 and Statistics 362. The formulation, analysis and interpretation of one or more probabilistic models in an area of scientific or social application, such as statistical mechanics, populations, learning, reliability, communications, inventory, or queues. Concurrent development of relevant portions of the theory of stochastic processes such as Markov processes, renewal processes, stationary processes, or branching processes. Three hours each week.

MAT 475. Topics in Mathematics (3) Prerequisite: Junior or senior standing and permission of instructor. Topics of current interest in mathematics not covered in existing courses. Three hours each week.

MAT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, a "B" or better average on all mathematics courses taken.

MAT 495. Seminar in Mathematics (1) Discussion of selected topics and problems. One hour each week.

MAT 499. Honors Work in Mathematics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 71.

Statistics Course Descriptions

(Department of Mathematical Sciences)

STT 205. Introduction to Statistics with Applications in the Social Sciences (3) Prerequisite: Mathematics 101, 111, or 115. (Designed for students majoring in the social sciences.) Graphical and numerical methods for univariate data; bivariate data organization and measures of association; contingency table analysis; sampling distributions; estimation and hypothesis testing; introduction to linear regression and correlation. Three hours each week.

STT 205-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 210. Introduction to Statistics with Applications in the Health Sciences (3) Prerequisite: Mathematics 111. Collection, tabulation and graphical representation of data. Measures of location and variation, measures of association and chi-squared distribution, correlation and regression, binomial, Poisson and normal distributions, estimation and tests of hypotheses. Health care statistics, elementary computer skills in analysis of data and interpretation of computer printout. Three hours each week.

STT 215. Introduction to Statistics with Applications in the Natural Sciences (3) Prerequisite: Mathematics 111 or 115. (Designed for students majoring in the natural sciences.) Graphical and numerical descriptive methods; random variables and probability distributions; estimation and hypothesis testing (large and small samples); linear regression and correlation; one-way analysis of variance; contingency tables and goodness of fit. Three hours each week.

STT 215-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 262. Discrete Probability and Random Variables (2) Prerequisite: Mathematics 205 or 211. An introduction to random variables and probability distributions in the discrete case. Topics include descriptive statistics; elementary combinatorics; discrete sample spaces and probability; mathematical expection; Tchebyshev's Theorem; conditional probability and independence; Bayes' Theorem; joint, conditional and marginal distributions; common discrete probability models. Introduction to continuous random variables. Two hours each week.

STT 362. Continuous Probability and Statistics (2) Prerequisite: Statistics 262 and Mathematics 206 or 212. Continuous random variables and their distributions. Topics include functions of random variables; estimation and tests of hypotheses; regression and correlation; least square curve fitting. Two hours each week.

STT 410. (Marine Biology 510) Applied Statistical Methods (3) Prerequisite: Statistics 205 or 215, or the equivalent. After a review of elementary statistics, the following major areas are studied: non-parametric methods; analysis of variance and experimental design and regression analysis. Three hours each week.

STT 465. (Mathematics 465) Stochastic Mathematical Models (3) Prerequisite: Mathematics 213 and Statistics 362. The formulation, analysis, and interpretation of one or more probabilistic models in an area of scientific or social application, such as statistical mechanics, populations, learning, reliability, communications, inventory, or queues. Concurrent development of relevant portions of the theory of stochastic processes such as Markov processes, renewal processes, stationary processes, or branching processes. Three hours each week.

STT 466. Mathematical Statistics (3) Prerequisite: Mathematics 213 and Statistics 362. Justification of elementary statistical procedures, together with an introduction to more advanced methods, such as experimental design, analysis of variance, regression, general linear and curvilinear models, partial correlation, and multiple regression. Three hours each week.

STT 475. Topics in Statistics (3) Prerequisite: Senior standing or permission of instructor. Topics of current interest in Statistics not covered in existing courses. Three hours each week.

STT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, and a "B" or better average on all mathematical sciences courses taken.

STT 499. Honors Work in Statistics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

MILITARY SCIENCE (ARMY ROTC)

(Department of Military Science)

The Army Reserve Officer's Training Corps at The University of North Carolina at Wilmington provides men and women who meet the physical and mental requirements the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Transfer and graduate students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

The Basic Course

MLS 101. Basic Military Skills I (1) An introduction to marksmanship, rappeling, self defense, drill and ceremonies, customs of the service and the organization of the Army. One laboratory hour each week.

MLS 102. Basic Military Skills II (1) First aid, survival skills, water operations, rope bridges and leadership. Skills are practiced in an outdoor environment. One laboratory hour each week.

MLS 201. Small Unit Leadership I (1) Prerequisite: Military Science 101 and 102, or permission of instructor. Introduction to small unit leadership, physical readiness training, characteristics and employment of US Infantry weapons. Also includes unit hot and cold weather injury prevention and the conduct of inspections. One laboratory hour each week.

MLS 202. Small Unit Leadership II (1) Prerequisite: Military Science 201 or permission of instructor. Basic map reading, day and night land navigation and orienteering in an outdoor environment. Introduction to the principles of war. One laboratory hour each week.

MLS 211. Basic Camp (4) Six-week camp held at Ft. Knox, Kentucky, which is used to satisfy basic course prerequisite for enrollment into Advanced ROTC. Emphasis is on physical fitness, marksmanship, leadership training, tactical training of the individual soldier, first-aid, and the purpose and function of nuclear, biological, and chemical warfare equipment. Dismounted drill, military courtesy and the wearing of the Army uniform are also examined.

The Advanced Course

Prerequisites: One of the following: Three years of JROTC, a veteran with a favorable reenlistment code, completion of the Basic Course or Military Science 211, or the National Guard or Army Reservist Junior who has finished basic training. Students must maintain a 2.0 grade point average, pass a physical examination and be a US citizen.

MLS 301. Advanced Military Skills (3) Prerequisite: Military Science 202. Land navigation, terrain analysis, NBC defense, communications procedures, first aid, combat intelligence. Includes an overview of the Soviet Army and a discussion of the role of the NCO in the US Army. One laboratory hour each week.

MLS 302. Small Unit Tactics (3) Prerequisite: Military Science 301. A continuation of Military Science 301, designed to provide the student with practical military skills including military symbols, squad and platoon tactics and a review of communications, weapons, and first-aid. There is a one-hour leadership laboratory held each week which is mandatory for all cadets.

MLS 311. Advanced Camp (0) Six week camp at Ft. Bragg, North Carolina. Advanced leadership techniques, squad and platoon tactics, tactical training of the individual soldier, land navigation, physical fitness, first-aid and NBC skills. In addition, students will be evaluated on their performance as potential junior officers throughout camp.

MLS 401. Staff and Management (3) Prerequisite: Military Science 301, 302. A study of the organization and functions of the military staff, i.e., the Commander, the Personnel Officer, the Intelligence Officer, the Operations Officer and the Supply Officer. Students prepare training schedules and present instruction to basic course cadets during leadership laboratory.

MLS 402. Military Justice (3) Prerequisite: Military Science 401. Advanced military subjects to include the military system of justice; also includes counseling techniques, unit administration, and methods of written and oral communications. There is a one-hour leadership laboratory conducted each week.

Military Science Students who are enrolled in the advanced course must also take History 300 (the American Military Experience), and Philosophy and Religion 215 (Military Ethics), prior to commissioning. Cadets are also required to elect one of the following:

1. Political Science 111 – Introduction to Political Science (3)
2. Psychology 145 – Psychology Applied to Human Life (3)
3. Sociology 105 – Introduction to Sociology (3)
4. Anthropology 105 – Introduction to Anthropology (3)

Cadets must also have one year of English composition, a management course, and National Security policy, i.e., Political Science 423 (3) within the first 10 years of federal service. Only 13 credit hours of Military Science courses may count toward graduation.

MEDICAL TECHNOLOGY

(See Professional Programs)

MODERN LANGUAGES

Dr. Beeler, *chairman.* Mrs. Bellamy, Mr. Lowe, Dr. J. Mount, Dr. T. Mount, Dr. Perez, Dr. Sharkey, Dr. Sparks, Mrs. Stites, Dr. Woodhouse.

A student who offers two high school units in French, German or Spanish, who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose language placement test scores and high school language grades are not satisfactory will be placed in and granted credit for the elementary level. A student

who offers three or more high school units in French, German, or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

The Department of Modern Languages offers the B.A. degree in French or Spanish.

Requirements for a concentration in French for the B.A. degree: Completion of all 300 level courses in French and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305; History 101 and 102, one course in English literature; and one additional foreign language through the intermediate level.

French Course Descriptions

(Department of Modern Languages)

FRH 101-102. Elementary French (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French; reading, writing, and basic conversation. Three hours each week. Fall and Spring.

FRH 105. French for Tourists (3) General interest course, but designed specifically for those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Fall and Spring.

FRH 201-202. Intermediate French (3-3) Prerequisite: French 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations of grammatical points when necessary. Three hours each week. Fall and spring respectively.

FRH 305. Conversation and Composition (3) Prerequisite: French 202 or equivalent. Intensive training in spoken and written French. Three hours each week. Fall.

FRH 306. Advanced Grammar (3) Prerequisite: French 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level. Three hours each week. Fall.

FRH 307. Phonetics (3) Prerequisite: French 202 or equivalent. Various speech phenomena; practice in phonetic transciption, pronunciation, and intonation; required of those preparing to teach at the high school level. Three hours each week. Spring.

FRH 311, 312. French Civilization (3,3) Prerequisite: French 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present. Three hours each week. Fall and spring respectively.

FRH 321, 322. Survey of French Literature (3,3) Prerequisite: French 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring respectively.

FRH 336. Explication De Texte (3) Prerequisite: French 305 or equivalent. Training in French textual criticism; oral and written reports. Three hours each week. Spring.

FRH 405. Advanced Conversation and Composition (3) Prerequisite: French 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching. Three hours each week. Offered on demand.

FRH 425. French Literature of the Sixteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports. Three hours each week. Fall 1985 and alternate years.

FRH 426. French Literature of the Eighteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau, and others; oral and written reports. Three hours each week. Fall 1985 and alternate years.

FRH 430. The French Novel of the Twentieth Century (3) Prerequisite: French 322. Readings, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports. Three hours each week. Spring 1985 and alternate years.

FRH 435. The Nineteenth Century French Novel (3) Prerequisite: French 322. Readings, discussion and analysis of major novels; romanticism, realism, and naturalism. Three hours each week. Fall 1986 and alternate years.

FRH 436. French Classicism (3) Prerequisite: French 322. Readings, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Moliere. Three hours each week. Fall 1986 and alternate years.

FRH 437. French Lyric Poetry from Villon to Baudelaire (3) Prerequisite: French 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports. Three hours each week. Spring 1985 and alternate years.

FRH 438. Masterpieces of French Drama (3) Prerequisite: French 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports. Three hours each week. Spring 1986 and alternate years.

FRH 439. Masterpieces of French Prose Fiction (3) Prerequisite: French 322 or equivalent. Representative works of imaginative French prose from the 17th century to the present; oral and written reports. Three hours each week. Spring 1986 and alternate years.

FRH 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

FRH 495. Seminar in French Literature (1-3) Prerequisite: French 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

FRH 499. Honors Work in French (2-3) Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

Requirements for a concentration in Spanish for the B.A. degree: Spanish 305, 306, 307, 311, 312, 321, 322, and at least two courses on the 400 level. A "C" or better grade

in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305, History 101 and 102, one course in English literature, and one additional foreign language through the intermediate level.

Spanish Course Descriptions

(Department of Modern Languages)

SPN 101-102. Elementary Spanish (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation. Three hours each week. Fall and spring.

SPN 105. Spanish for Tourists (3) General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audiovisual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Fall and spring.

SPN 201-202. Intermediate Spanish (3-3) Prerequisite: Spanish 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion, and others. Oral discussion to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary. Three hours each week. Fall and spring respectively.

SPN 209. Spanish Literature in Translation (3) Study of representative works from the literature of Spain. Readings and class discussions in English. Three hours each week. Fall 1985 and alternate years.

SPN 210. Spanish-American Literature in Translation (3) Study of representative works from the literature of Spanish America. Readings and class discussion in English. Three hours each week. Spring 1986 and alternate years.

SPN 211. Spain Today (3) An examination of the institutions and social fabric of contemporary Spain as they evolved from traditional roots, including units on history, politics, regional culture, literature, music, art, customs and economic resources. Readings and class discussions in English. Three hours each week. Fall 1986 and alternate years.

SPN 212. Latin America Today (3) An examination of the institutions and social fabric of contemporary Latin America as they evolved from traditional roots, including units on history, politics, indigenous cultures, literature, music, art, customs, and economic resources. Readings and class discussions in English. Three hours each week. Spring 1986 and alternate years.

SPN 304. Business Spanish (3) Prerequisite: Spanish 202 or equivalent. Designed for students who need familiarization with the terminology necessary for the fields of

economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish-speaking countries are included. Three hours each week. Spring.

SPN 305. Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Intensive training in spoken and written Spanish. Three hours each week. Fall.

SPN 306. Advanced Grammar (3) Prerequisite: Spanish 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level. Three hours each week. Fall.

SPN 307. Phonetics (3) Prerequisite: Spanish 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level. Three hours each week. Spring.

SPN 311, 312. Spanish and Spanish-American Civilization (3,3) Prerequisite: Spanish 202 or equivalent. Geographical, historical and cultural aspects of Spain (311) and Spanish America (312). Three hours each week. Fall and spring respectively.

SPN 321, 322. Survey of Spanish Literature (3,3) Prerequisite: Spanish 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring respectively.

SPN 405. Advanced Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching. Three hours each week. Offered on demand.

SPN 421, 422. Spanish-American Literature (3,3) Prerequisite: Spanish 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry. Three hours each week. Fall and spring respectively. 1986-87 and alternate years.

SPN 430. Spanish Literature of Middle Ages (3) Prerequisite: Spanish 322 or equivalent. Literature of medieval Spain. Three hours each week. Fall 1986 and alternate years.

SPN 431. Golden Age Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature of the sixteenth and seventeenth centuries. Three hours each week. Spring 1985 and alternate years.

SPN 432. Modern Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the beginning of the eighteenth century to the Generation of 1898. Three hours each week. Fall 1985 and alternate years.

SPN 433. Contemporary Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the Generation of 1898 to the present. Three hours each week. Spring 1986 and alternate years.

SPN 434. Cervantes (3) Prerequisite: Spanish 322 or equivalent. *Don Quixote* and other selected works. Three hours each week. Fall 1986 and alternate years.

SPN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

SPN 495. Seminar in Spanish Studies (1-3) Prerequisite: Spanish 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

SPN 499. Honors Work in Spanish (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

German Course Descriptions

(Department of Modern Languages)

GER 101-102. Elementary German (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation. Three hours each week. Fall and spring respectively.

GER 201-202. Intermediate German (3-3) Prerequisite: German 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and expand his knowledge of the language. Individual projects relating to the student's major field of interest. Three hours each week. Fall and spring respectively.

GER 305. Conversation and Composition (3) Prerequisite: German 202 or consent of instructor. Intensive training in spoken and written German. Three hours each week. Fall 1986 and alternate years.

GER 321, 322. Survey of German Literature (3,3) Prerequisite: German 202 or consent of instructor. Extensive readings covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. 321: Literature through Goethe. 322: Literature beginning with the *Romantiker.* Three hours each week. Fall and spring respectively. 1985-86 and alternate years.

GER 350. Masterpieces of German Literature in English Translation (3) Reading, discussion, and analysis of representative works by major German authors: Lessing, Goethe, Schiller, Kleist, Hebbel, Hauptmann, Mann, Hesse, and others. Knowledge of German not required. Three hours each week. Spring 1985 and alternate years.

GER 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

Modern Language Course Descriptions

(Department of Modern Languages)

MLN 305. Romance Linguistics (3) Prerequisite: French 307 or Spanish 307 or equivalent. Origins of French and Spanish. Historical phonology, morphology and syntax; some attention to comparative and applied linguistics. Three hours each week. Spring.

Portuguese Course Descriptions

(Department of Modern Languages)

PRT 101-102. Elementary Portuguese (3-3) Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal. Three hours each week. Fall and spring respectively.

PRT 201-202. Intermediate Portuguese (3-3) Prerequisite: Portuguese 102 or equivalent. 201: A thorough and practical review and summarization of modern Portuguese. Introduction to readings of literary and intellectual value, as well as some materials of social and political interest. Continuation of the aural-oral practice in class. 202: Emphasis on reading for the student in subjects of various types. Materials drawn from fields such as history, politics, sociology, geography, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief grammatical explanations when necessary. Three hours each week. Fall and spring respectively.

MUSIC

(See Creative Arts)

PHILOSOPHY AND RELIGION

Dr. Megivern, *chairman.* Dr. Altrichter, Dr. Buescher, Dr. Isen, Dr. Martin, Dr. McGowan, Dr. Rafalko, Dr. Rensma, Dr. Schmid, Dr. Shinn.

Requirements for a concentration in Philosophy and Religion for the B.A. degree:

I. **B.A. degree with emphasis in Philosophy:** Philosophy and Religion 101, 103, 110, 115, 201, 202, 400, and 15 additional hours including at least 9 at the 300-400 level.

II. **B.A. degree with emphasis in Religion:** Philosophy and Religion 101, 103, 110, 230 and either the Biblical sequence (235, 236) or the History sequence (238, 240) plus 400 and 15 additional hours including at least 9 at the 300-400 level.

Philosophy Course Descriptions

(Department of Philosophy and Religion)

P&R 101. Invitation to Philosophical Thinking (3) An introduction to various philosophers and philosophical problems from historical, critical, and other perspectives. Three hours each week.

P&R 110. Introduction to Logic (3) Introduction to the principles of logic including the rules of deduction, the categorical syllogism, induction, and fallacies. Initiation in computer logic programs. Three hours each week.

P&R 115. Introduction to Ethics (3) An introduction to fundamental principles, theories, and problems in ethics. Three hours each week.

P&R 201. History of Western Philosophy I (3) A survey of Western philosophical thought in ancient and medieval times. Emphasis on the Greek origins of the philosophical tradition. Readings from the Pre-Socratics, Plato, Aristotle, Roman philosophy and such Christian thinkers as Augustine and Thomas Aquinas. Three hours each week.

P&R 202. History of Western Philosophy II (3) A survey of Western philosophical thought from the beginning of the modern era to the present. Emphasis on the rationalist and empiricist traditions. Readings from such philosophers as Descartes, Spinoza, Locke, Hume, Kant and Russell. Three hours each week.

P&R 205. American Philosophy (3) An introduction to American philosophical thought, beginning with the origins of Pragmatism (C. S. Peirce and W. James) and proceeding through an examination of the thought of Royce, Santayana, Dewey and Quine. Three hours each week.

P&R 211. Toward a Contemporary Philosophy of Man (3) An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology. Three hours each week.

P&R 213. Existentialism (3) An introduction to major themes in existential thought such as freedom, authenticity, death of God, the meaning of life. Primary source readings from existential authors, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Marcel. Three hours each week.

P&R 215. Applied Ethics (3) Examination of the principles and problems in the application of ethics to a particular area of concern. Topics will vary from one course offering to another. (Ethics in the World of Business; Bioethics; Military Ethics). Three hours each week.

P&R 218. Symbolic Logic (3) Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus, consistency and completeness proofs, and mathematical induction. Three hours each week.

P&R 220. Philosophy & Science Fiction (3) A survey of the major philosophical themes explored in contemporary science fiction. Topics covered will include the nature and limits of science and technology, human nature, and the viability of alternative political arrangements. The emphasis will be on learning to identify the philosophical themes that underlie much of contemporary science fiction and to use these to develop a better understanding of the modern world. Readings will include both fiction and contemporary philosophy.

P&R 302. Plato (3) Prerequisite: Philosophy and Religion 101 or 201. Study of the Dialogues of Plato. Analysis of texts; contemporary interpretations. Three hours each week.

P&R 303. Aristotle (3) Prerequisite: Philosophy and Religion 101 or 201. An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation. Three hours each week.

P&R 305. Medieval Philosophy (3) Prerequisite: Philosophy and Religion 101 or 201. The leading thinkers and issues from the 9th century rise of dialectics to 14th century Nominalism. Special attention to the 13th century climax in the works of Bonaventure, Albertus Magnus, and Thomas Aquinas. Three hours each week.

P&R 310. (Political Science 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: Natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality. Three hours each week.

P&R 313. Social and Political Philosophy (3) Prerequisite: Philosophy and Religion 101, 115, or consent of instructor. An exploration of philosophical issues and concepts central to an understanding of social and political life, e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest. Three hours each week.

P&R 316. The Philosophy of Art (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Investigation and exploration into both traditional and contemporary theories regarding the philosophy of art and its associated problems. Visual Arts, such as painting, sculpture, film, etc., will be examined. Three hours each week.

P&R 317. Epistemology (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues in theory of knowledge: nature of knowledge; reasoning, judgment; truth, certainty and probability. Three hours each week.

P&R 318. Metaphysics (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues and positions concerning the nature of reality: theories of being, substance, causality. Three hours each week.

P&R 320. Philosophy of Mind (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Selected readings drawn from classical and/or contemporary sources bearing on problems of the self, such as the issue of personal identity and the concept of a person, the problem of the relation of mind and body and the question of the nature of consciousness. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 345. Philosophy of Science (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Fundamental issues in the philosophy of science; the nature of scientific method; modes of verification and the role of paradigms. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior or senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors in junior or senior year; open to qualified non-majors.

P&R 401. The Philosophy of Immanuel Kant (3) Prerequisite: Philosophy and Religion 101 or 202. An examination of the thought and influence of Kant in his three great critiques, especially the first, the *Critique of Pure Reason,* as well as in his *Groundwork of the Metaphysics of Morals.* Three hours each week.

P&R 405. Contemporary Philosophical Thought (3) Prerequisite: Philosophy and Religion 101 or 202. Primary source study of the various philosophers of the 20th century, representing the major schools or movements. Three hours each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Religion Course Descriptions

(Department of Philosophy and Religion)

P&R 103. Introduction to Religion (3) Religion as a field of study; major modes of religious expression; chief issues in religious thought and experience; the search for method since the Enlightenment critique; contemporary developments.

P&R 140. Research Tools for Historical and Textual Criticism—Hebrew (3) Basic study of the Hebrew language with special attention to that of the Old Testament. Three hours each week.

P&R 141. Research Tools for Historical and Textual Criticism—Greek (3) Basic study of the Greek language with special attention to that of the New Testament. Three hours each week.

P&R 230. Judaism, Christianity and Islam (3) Survey of the three major Abrahamic faiths; the origins, beliefs and practices of these "people of the Book;" history of their interactions and influence on Western culture. Three hours each week.

P&R 231. Primitive and Classical Religions (3) A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe. Three hours each week.

P&R 232. Oriental Religions (3) A survey of Hinduism, Buddhism, Taoism, and Confucianism; historical aspects, basic insights, texts, relevancy to contemporary man. Three hours each week.

P&R 235. Introduction to the Old Testament (3) Historical study of the Hebrew, Canaanite, Sumerian, Babylonian, and Egyptian cultures, based upon primary literary and archaeological sources. Three hours each week.

P&R 236. Introduction to the New Testament (3) Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community. Three hours each week.

P&R 238. History of Christianity I: Early and Medieval (3) Survey of the basic development of the Christian church from its foundation to the Protestant Reformation. Emphasis on major thinkers and pivotal events that determined the historical trends.

P&R 240. History of Christianity II: Modern (3) Survey of the history of Christianity from the Reformation to the present. Accent on the contributions of the chief theologians and the particular problems raised by "modernity" since the 17th century. Three hours each week.

P&R 242. Religion in America (3) A survey of religious thought from colonial times to the present; representative Protestant, Catholic, and Jewish thinkers; the phenomenon of "civil religion," church involvement in social and political issues. Three hours each week.

P&R 243. Afro-American Religion (3) Study of the religious life of black American communities, with concentration on independent traditions, sects, cults, and a sampling of major thinkers and issues. Three hours each week.

P&R 255. Historical Geography of Middle East (Biblical Era) (3) Prerequisite: Geography 145 or Philosophy and Religion 235 or consent of instructor. Geographical, archaeological, historical, and geological investigation of the physical environment and cultural landscapes that provide the settings for the evolution of the population, economics, and cultures of southwestern Asia.

P&R 334. Old Testament Literature (3) Analysis and interpretation of a particular part of the Hebrew Scriptures. Topics will vary from one course offering to another. (The Torah; the Prophets; the Writings). Three hours each week.

P&R 336. New Testament Literature (3) Analysis and interpretation of a particular part of the New Testament. Topics will vary from one course offering to another. (The Gospels; the Acts of the Apostles; the Johannine works; the Letters of Paul). Three hours each week.

P&R 337. Apocrypha and Pseudepigrapha (3) Prerequisite: Philosophy and Religion 235 or 236. Analysis of the major Jewish and Christian writings related to but excluded from the Bible, including histories, apocalypses, testaments, prayers, moral tales, and wisdom books.

P&R 339. Psychology of Religion (3) A history of the interaction of modern psychology with the Western religious tradition from William James to the present; Freud and Jung, Allport and Menninger, Tillich and May, Hiltner and Pruyser, on such areas

as faith and doubt, prayer and prejudice, symbol and guilt, authority and integration of personality. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101 or 103. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 352. Southern Religion (3) A study of religion in the Old South until 1865. Topics include: revivalism; the system of slavery; the Southern way of life; and the religious beliefs and practices of blacks and whites. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior and senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors.

P&R 421. Contemporary Religious Thought (3) Prerequisite: Philosophy and Religion 103. Primary source study of principal religious thinkers of 20th century, especially within Judaism and Christianity. Three hours each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary source of student-selected philosophic and/or religious problems.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

PHYSICAL EDUCATION

(See Health, Physical Education and Recreation)

PHYSICS

(See Chemical and Physical Sciences)

POLITICAL SCIENCE

Dr. Dixon, *chairman.* Dr. Ahmad, Dr. Johnston, Dr. Jones, Dr. Lowery, Dr. Sheridan, Dr. Wagoner.

Requirements for a concentration in Political Science for the B.A. degree: Thirty-six hours of Political Science which must include 101-102, 111, 210 and 211. Eighteen hours must be at the 300-400 levels and at least one 300-400 level course must be taken in each of the following sub-fields: American Government and Politics, Political Theory and Methodology, International Relations, and Comparative Government.

A "C" or better average on all 300-400 level Political Science courses.

Required collaterals: Twenty-four hours selected from at least four of the following disciplines: Anthropology, Economics, Environmental Studies, Geography, History, Psychology, and Sociology. In addition, a research skill is required. This can be demonstrated by either of the following methods: passing the Statistics in the Social Sciences course offered by the Mathematical Science Department or passing six semester hours in one of the modern foreign languages.

Students planning to do graduate work are urged to study a modern foreign language and acquire a basic knowledge of Computer Science, Statistics and Mathematics through the calculus.

Political Science Course Descriptions

(Department of Political Science)

PLS 101-102. American National Government (3-3) 101 focuses upon basic principles, institutions and functions such as federalism, separation of powers, civil liberties, and judicial review. 102 introduces the political environment of public opinion, political parties and interest groups and traces its impact upon national policy areas, such as civil rights, the economy, and national defense.

PLS 111. Politics and Government in Global Perspective (3) A survey from a cross-national, comparative perspective of politics and governmental institutions within and among nation-states. Attention will also be given to the role of political theory and ideology in the governance of states. Three hours each week.

PLS 202. Contemporary Political Issues (3) A critical examination of selected contemporary domestic and international policy issues.

PLS 206. American State Government and Politics (3) A survey and analysis of the organization, functions, and political processes of the American states. Three hours each week.

PLS 207. American Urban Government and Politics (3) A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics. Three hours each week.

PLS 210-211. Research Methods in Political Science (3-3) An introduction to the rationale and application of basic methods of political research. PLS 210 focuses on library research – the information sources of government and politics and how to use them. PLS 211 introduces quantitative methods – the principles, applications, and limitations of statistical and computer analysis of political phenomena. Three hours each week.

PLS 300, 301. American Constitutional Law (3,3) Prerequisite: Political Science 101. An intensive study of the Supreme Court decisions which have contributed to the contemporary interpretation of the United States Constitution. The treatment is analytical rather than historical. 300 is concerned with decisions involving the powers of the judicial, executive and legislative branches of the national government, the relationships among these branches, and the federal system. 301 is a study of decisions involving the Bill of Rights, the 14th Amendment and other provisions which protect individual rights and liberties. Three hours each week.

PLS 302. Public Opinion and Democracy (3) Prerequisite: Political Science 111 or 101 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience. Three hours each week.

PLS 303. Elections and Voting Behavior (3) Prerequisite: Political Science 111 or 101 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II. Three hours each week.

PLS 304. Introduction to Public Policy Analysis (3) Prerequisite: Political Science 101. A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation.Three hours each week.

PLS 307. The American Legislature (3) Prerequisite: Political Science 101. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process. Three hours each week.

PLS 308. Public Administration (3) Prerequisite: Political Science 101. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management. Three hours each week.

PLS 309. The American Chief Executive (3) Prerequisite: Political Science 101. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor. Three hours each week.

PLS 310. (Philosophy 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality. Three hours each week.

PLS 313. Early Political Thought (3) An introduction to the origin and development of political theory from the 5th Century B.C. through the medieval era. Emphasis will be placed on the political ideas of Plato, Aristotle, the Epicureans, the Stoics, Cicero, Augustine, medieval philosophers, and Aquinas in order to discover the recurring themes of political inquiry. Three hours each week.

PLS 314. Modern Political Thought (3) A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T. H. Green and Nietzsche. Three hours each week.

PLS 315. Contemporary Political Ideologies (3) A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left. Three hours each week.

PLS 316. Women and Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. An introduction to political perspectives on sex role differentiation. Among the topics to be discussed will be political socialization of women in ancient and modern society; women's roles in politics and government; political consequences of women's entry into the work force; and contemporary issues in the women's movement. Emphasis will be placed throughout on comparative political analysis. Three hours each week.

PLS 330. Political Systems of Africa (3) The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on the contemporary economics, social and political problems. Three hours each week.

PLS 331. Politics in Developing Nations (3) An examination of the political, economic, and social problems confronting developing nations. Attention will be given to such issues as cultural pluralism, one-party states, military dictatorships, and U.S. relations with the developing world.

PLS 335. European Political Systems (3) Political institutions and processes of selected European countries, including Great Britain, France and Germany. Three hours each week.

PLS 336. Political Systems of the Soviet Union and Eastern Europe (3) A comparative study of the political institutions and processes of the Soviet Union and the eastern European countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China. Three hours each week.

PLS 338. Political Systems of the Middle East (3) The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed

examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied. Three hours each week.

PLS 339. Political Systems of Asia (3) The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries. Three hours each week.

PLS 340. Blacks in American Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system. Three hours each week.

PLS 405. American Parties and Pressure Groups (3) An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment. Three hours each week.

PLS 406. Contemporary Southern Politics (3) Political Science 211 or consent of instructor. An examination of recent developments throughout the American South and their impact on national politics. Topics covered include southern political culture, the decline of the one-party system, and the changing roles of blacks and organized labor. Emphasis is placed upon independent research projects involving student analysis of census, election return, and public opinon survey data. Three hours each week.

PLS 407. The American Judicial Systems (3) Prerequisite: Political Science 101. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio-metric relationships within the judiciary. Three hours each week.

PLS 415. American Political Thought (3) American political thought from the colonial period to the present. Three hours each week.

PLS 422. Contemporary American Foreign Policy (3) Prerequisite: Political Science 101 or 111. The roles and interrelationships of Congress, the media, public opinion, the President, the Secretaries and Departments of State and Defense, and the intelligence community are examined. Emphasis is placed on the content and the dynamic aspects of the process of policy formulation and implementation. Three hours each week.

PLS 423. National Security Policy (3) Prerequisite: Political Science 101. A study of formulation of security policy, including the roles of the executive and legislative branches and of non-governmental factors; evolution of changing assumptions, strategies, and goals; the nature of U.S. security requirements, U.S. military commitments abroad, and the cost of strategies based on weapons superiority, arms control, and disarmament.

PLS 425. International Politics (3) Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states. Three hours each week.

PLS 426. International Law (3) Prerequisite: Political Science 101. Nature, development and basic concepts of international law. Examination of the scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations. Three hours each week.

PLS 427. International Organizations (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A survey of the evolution, objectives and methods of various types of regional and universal organizations and their role in contemporary international relations. Special emphasis will be placed on the principal functions and agencies of the United Nations and the European economic community. Three hours each week.

PLS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PLS 495. Departmental Seminar (1-3) Prerequisite: Six hours of Political Science and consent of department chairman. Consideration of special topics in Political Science. May be repeated for additional credit.

PLS 498. Internship in Political Science (3-6) Prerequisite: Political Science 111, 101, 211, and at least one of the following: Political Science 300, 304, or 308. This course is open only to persons taking a concentration in political science who are classified as juniors or seniors. The internship involves an experiential learning situation in selected public or private agencies or with an individual which allows the student to utilize academic training while learning from a practical field experience. A formal research project is a major part of the internship.

PLS 499. Honors Work in Political Science (2-3) Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

For 292 and 492, see explanation on p. 71.

PSYCHOLOGY

Dr. Williams, *chairman.* Dr. Applefield, Dr. Awkard, Dr. Bradley, Dr. Brown, Dr. Bruce, Dr. Galizio, Dr. Jackson, Dr. Johnson, Dr. Kishton, Dr. Kowal, Dr. Lamb, Dr. Newton, Dr. Overman, Dr. Puente, Dr. Sanders.

Requirements for a concentration in Psychology for the B.A. degree: Psychology 105, 225, 355, 405, one course from each of the six categories listed below, and nine additional hours in Psychology. Category 1: PSY 220, 221, 324 or 420. Category 2: PSY 410, 412, or 417. Category 3: PSY 318, 456 or 457. Category 4: PSY 346, 347 or 365. Category 5: 336, 337 or 425. Category 6: PSY 350, 352, 422, or 450. A "C" or better average on the ten specified courses and on all courses attempted within Psychology. Twelve hours of collaterals, approved by the department, are required.

Psychology Course Descriptions

PSY 105. General Psychology (3) Principles of psychology with emphasis on scientific methods used in studying human behavior. Three hours each week.

PSY 110. Self-Management and Self-Motivation (3) Techniques and concepts to provide knowledge, skills, and attitudes to improve performance. Development in coping skills, including determination and modification of motivation, self-management and time-management skills, and efficient methods of learning and organizing materials and solving problems. (Not for Social Science General Degree requirement or Psychology major credit.)

PSY 145. Psychology Applied to Human Life (3) A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment. Three hours each week.

PSY 216. Educational Psychology (3) Prerequisite: Psychology 105 is suggested. Study of the application of psychological theories and principles in educational settings. Three hours each week.

PSY 220. Child Psychology (3) The study of human psychological development through childhood and early adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

PSY 221. Adolescent Psychology (3) The study of human psychological development from late childhood through adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

PSY 225. Introductory Statistics for the Behavioral Sciences (4) Prerequisite: Psychology 105 and three credit hours in mathematics. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes or hypothesis testing. Parametric techniques are emphasized, but nonparametric tests are included. Three lecture and two laboratory hours each week.

PSY 245. Drugs and Behavior (3) Prerequisite: Three semester hours credit in Psychology. An examination of the psychological aspects of drug use and abuse. Emphasis will be on the effects of major psychoactive drugs (including alcohol) on behavior, the psychological determinants of drug use, and treatment of drug abuse. Three hours each week.

PSY 262. Psychology of Consciousness (3) Prerequisite: Psychology 105. A study of the mental processes which occur during various states of human consciousness such as sleep, biofeedback and meditation. Emphasis on the research and theories of brain processes during states of consciousness. Three hours each week.

PSY 265. Human Sexual Behavior (3) Prerequisite: Three hours of Psychology, excluding Psy 110. Examination of the psychological aspects of human sexuality with emphasis on psychosexual development and behavior. Includes discussion of causative factors and treatment of sexual disorders and deviations. Three hours each week.

PSY 275. Psychology of Sex Differences (3) Prerequisite: Psychology 105 or 145. An examination of biological and learned determinants of sex-typed behaviors, current research findings on sex-typed habits and attitudes, and their implications for interpersonal relationships and personal adjustment. Three hours each week.

PSY 311. Psychology of Language (3) Prerequisite: Psychology 105. An introduction to theory and research concerning human language use. Topics will include the nature of human linguistic competence, the perception of speech, the comprehension of speech, memory for verbal information, the production of speech, and the biological basis of human language. Three hours each week.

PSY 322. Psychology of Exceptional Children (3) Prerequisite: Psychology 105 or 220. A study of the physical, cognitive, and personality characteristics of the major types of childhood exceptionality, including high intelligence and creativity, mental retardation, learning disabilities, emotional disorders, language impairments, and sensory and physical handicaps. Issues such as assessment, etiology, family relations, and treatment will be discussed. Three hours each week.

PSY 323. Lifespan Human Development (3) Prerequisite: Three hours in Psychology. An exploration of the variables and factors underlying human growth and development across the lifespan. Physical, cognitive, social, emotional, and sexual development are emphasized. Three hours each week.

PSY 324. Psychology of Adulthood and Aging (3) Prerequisite: Three hours in Psychology, excluding Psy 110. A developmental approach to the portion of the lifespan from young adulthood through sensescence. Emphasis on the interaction of psychological, psychosocial and physiological aspects of development. Three hours each week.

PSY 336. Industrial Psychology (3) Prerequisite: Psychology 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work. Three hours each week.

PSY 337. Vocational Psychology (3) Prerequisite: Psychology 105 or permission of instructor. The study of individual vocational behavior and development. Topics include the history of vocational psychology, theories of vocational development and choice, as well as stimulus, organismic, and response variables correlated with the choice process. Attention is directed toward theories and research concerning the meaning of vocational motivation and vocational adjustment, as well as the prediction of vocational success and satisfaction. Systems for defining vocational problems are included. Three hours each week.

PSY 346. Psychology of Personality (3) Prerequisite: Psychology 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality. Three hours each week.

PSY 347. Psychopathology (3) Prerequisite: Psychology 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders. Three hours each week.

PSY 350. Principles of Behavioral Change (3) Prerequisite: Psychology 105. Application of the principles of behavioral control in interpersonal, educational, and clinical settings. Primary emphasis will be on behavioral modification techniques such as contingency management, desensitization, biofeedback, etc.

PSY 352. Behavioral Medicine (3) Prerequisite: Psychology 105 or 145. Integrates psychological and biomedical knowledge relevant to physical health and illness. Describes the interaction of psychological phenomena with the epidemiology, etiology, pathogenesis, treatment, and rehabilitation of physical disorders. Three hours each week.

PSY 355. Introduction to Experimental Psychology (4) Prerequisite: Psychology 225. Basic principles of psychological research design and evaluation, including techniques of data collection and analysis, and conduct, interpretation, and reporting of various types of psychological research. Experimental research is emphasized. Three lecture and three laboratory hours each week.

PSY 365. Social Psychology (3) Prerequisite: Psychology 105. The study of individual human behavior as a function of the influence of other persons. Emphasis on the psychology of person perception, interpersonal communication and relationships, attitude formation and change, and small group behavior. Three hours each week.

PSY 366. Psychology of Marriage and Family (3) Prerequisite: Three hours of Psychology. The study of personality development within the marriage and family including recent theoretical and empirical findings on courtship, interpersonal attraction, marriage contract, and the various stages of the family life cycle. Communication, familial functioning and dysfunctioning are emphasized. Three hours each week.

PSY 370. (Environmental Studies 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

PSY 405. History and Systems of Psychology (3) Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends. Three hours each week.

PSY 410. Cognitive Psychology (4) Prerequisite: Psychology 355. Introduction to theories and research related to human cognition. Memory, attention, problem solving, and thinking are emphasized. Three lecture and three laboratory hours each week.

PSY 412. Sensation and Perception (4) Prerequisite: Psychology 225 and 355 or consent of instructor. Survey of sensory and perceptual processes, techniques for measuring sensations and perceptions, and theories of perception. Psychological, anatomical, physiological, and environmental factors important in determining how we perceive the world are examined. Demonstrations will introduce students to interesting perceptual phenomena. Three lecture and three laboratory hours each week.

PSY 417. Psychology of Learning (4) Prerequisite: Psychology 355. Study of the basic facts related to the learning process. Effects of reinforcement, extinction, generalization and discrimination, verbal learning and retention, as well as other phenomena, are considered. Three lecture and three laboratory hours each week.

PSY 418. Motivation and Emotion (3) Prerequisite: Psychology 105. Psychological theory and research in the areas of motivation and emotion. Basic as well as more complex motive states will be examined as they arise from physiological needs and from learning and cognitive processes. Data from animal as well as human studies will be considered. Three hours each week.

PSY 420. Developmental Psychology (4) Prerequisite: Psychology 355. Study of the principles and processes underlying the changes occurring during normal development of humans and non-humans. Motor, social, and intellectual development are emphasized. Three lecture and three laboratory hours each week.

PSY 422. Child Psychopathology (3) Prerequisite: Psychology 105 and either Psy 220, 322, or 420. Advanced study of child psychopathology emphasizing behavioral, biological, and psychodynamic approaches. The major disorders of childhood will be compared in terms of etiology, manifestations, and treatments. Low incidence and multiple-handicapping conditions will also be considered. Three hours each week.

PSY 425. Psychological Tests and Measurements (4) Prerequisite: Psychology 105 and 225 or consent of instructor. Introduction to theory and practice of test construction, including a survey of intelligence, achievement and personality tests and their applications. Three lecture and two laboratory hours each week.

PSY 449. Psychology of Death (3) Prerequisite: Psychology 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered. Three hours each week.

PSY 450. Introduction to Counseling (3) Prerequisite: Psychology 346 and 347. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored. Three hours each week.

PSY 451. Supervised Counseling Practice (3) Prerequisite: Psychology 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit. Three hours each week.

PSY 452. Ethical Principles in Psychology (1) Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research.

PSY 455. Advanced Psychological Research (3) Prerequisite: Psychology 355 and consent of instructor. Experience in the design, conduct, and evaluation of psychological

research. Advanced design and analysis techniques. Each student designs and conducts a research project and a laboratory exercise for Psychology 355. Three hours each week. Offered on demand.

PSY 456. Physiological Psychology (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior. Three hours each week.

PSY 456-51. Methods in Physiological Psychology (1) Prerequisite or corequisite: Psychology 456. A study of basic mammalian neuroanatomy and methodology of physiological psychology. Gross anatomy of the brain is taught by using sheep brains, slides and tape series. Includes demonstrations of brain research methods such as small animal surgery, brain stimulation and recording, and preparation of brain tissue for microscopic examination. Two laboratory hours each week.

PSY 457. Animal Behavior (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phylogenetic positions. Three hours each week.

PSY 457-51. Animal Behavior Laboratory (1) Prerequisite or corequisite: Psychology 457. Laboratory exercises in animal behavior, including both field and traditional laboratory techniques. Three laboratory hours each week.

PSY 465. Community Psychology (3) Prerequisite: Psychology 105. Psychology 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health. Three hours each week.

PSY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PSY 495. Topical Seminar (1-3) Prerequisite: Psychology 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

PSY 499. Honors Work In Psychology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 71.

RECREATION

(See Health, Physical Education and Recreation)

SOCIAL SCIENCE

Participating disciplines: Anthropology, Earth Sciences, Political Science, Psychology, Sociology.

Requirements for a concentration in Social Science for the B.A. degree: Fifty-one hours in the Social Sciences, with a minimum of 30 hours in courses above 299. At least one course is required in each of the five participating disciplines, or at least one course required in four disciplines with an additional course in Economics. A minimum of 21 hours is required in the primary concentration area, with at least 15 of these hours in courses above 299. A minimum of 12 hours is required in each of two secondary concentration areas. At least six additional hours in Social Science are required.

Additional required courses include: a Research Methods course, the discipline of this course to be decided by the advisor and the student (3 hours); an appropriate Statistics course (3 hours); a two-course History sequence, or an appropriate pairing to be decided by the advisor and the student (6 hours). A Computer Science course is recommended, but not required. At least a 2.0 grade point average in the Social Science concentration must be attained.

A faculty member within the area of primary concentration shall serve as the student's advisor. Note: The primary concentration area may not serve as a discipline in a double major.

SOCIOLOGY AND ANTHROPOLOGY

Dr. James Sabella, *chairman.*

The Department of Sociology and Anthropology is comprised of Anthropology, Criminal Justice, Social Work and Sociology. The baccalaureate degree is offered in both Sociology and Anthropology.

Anthropology

Dr. Lerch, Dr. Loftfield, Dr. McCall, Dr. Sabella.

Requirements for a concentration in Anthropology for the B.A. degree: Anthropology 206, 207, 207-51, 210, 345, 450 and 21 additional hours comprised of two courses from each of the first three subfields listed below and one from the linguistics group. Physical: 320, 322, 324, 430. Archaeology: 307, 311, 312, 411. Cultural: 301, 302, 303, 304, 305, 306, 309, 317, 350. Linguistics: 208, Psychology 311, English 311, 312. Although no collateral courses are required, students contemplating a professional career in anthropology are urged to study a foreign language and acquire basic skills in computer science and statistics. Anthropology advisors may recommend additional courses in the sciences, humanities, or mathematics commensurate with individual career plans. A "C" grade point average over-all is required in departmental courses, and at least a "C" grade is mandatory in specific courses required in the department.

Anthropology Course Descriptions

(Department of Sociology and Anthropology)

ANT 105. Introduction to Anthropology (3) Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man. Three hours each week.

ANT 205. (**Sociology 205**) **Human Societies** (3) The comparative study of human society and culture, with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions – economy, marriage and kinship, politics and religion – which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamics of social process and cultural change are also introduced. Three hours each week.

ANT 206. Cultural Anthropology (3) A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures. Three hours each week.

ANT 207. Archaeology (3) The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

ANT 207-51. Archaeological Laboratory (1) Corequisite or prerequisite: Archaeology 207. Course is designed to familiarize students with techniques of archaeological recovery, preparation, preservation, and analysis of recovered archaeological materials. Laboratory work will parallel lecture, providing practical experience in techniques covered as part of lecture course. It is not necessary to take the lab in order to take lecture. Three hours each week.

ANT 208. Language and Culture (3) Human language, its characteristics and its relationship to other communication systems will be examined. The use of language to illuminate historical relationships and current sociocultural processes will be discussed, as well as ways in which one can investigate culture through cognitive structures elicited from speech. Three hours each week.

ANT 210. Physical Anthropology (3) Examination and correlation of fossil remains and artifacts preserved in the geologic record as related to the anatomy and behavior of living human and non-human primate groups. Three lecture hours each week.

ANT 230. (**Sociology 230**) **Utopian and Communal Societies** (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are reviewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

ANT 250. Anthropology Through Film (3) A series of anthropological (ethnographic) films exploring life and values, especially in nonwestern societies, provide the primary course material. The films are used as a surrogate field experience to introduce a number of major anthropological topics that receive further emphasis in assigned readings and class discussion. Ethnocentrism, adaptation, warfare and acculturation among other themes are explored in this course. Three hours each week.

ANT 301. Shamanism, Witchcraft, and Cults (3) Prerequisite: Anthropology 105 or consent of instructor. A study of the religious institutions of traditional band, tribal, and peasant societies. Topics cover psychological stress, social control, and ritual healing. The cult within modern western society will be compared with those in traditional preindustrial society. Three hours each week.

ANT 302. Traditional Societies in the Modern World (3) Prerequisite: Anthropology 105 or consent of instructor. An assessment of the impact of Western industrial societies on primitive and peasant peoples of the world. Themes of acculturation, underdevelopment, modernization, economic dependency and rural to urban migration will be treated from a cross-cultural perspective. Three hours each week.

ANT 303. Women, Work and Culture (3) Prerequisite: Anthropology 105 or Sociology 105 or consent of instructor. A study of women's work in traditional societies (primarily Third World). The allocation of work to women is seen as affected by such factors as: socialization and gender defintion, economic exchange patterns, division of labor, religious beliefs, political structure, and the impact of modernization and development policies on work and family roles of Third World women. Three hours each week.

ANT 304. Indians of South America (3) Prerequisite: Consent of instructor. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent. Three hours each week.

ANT 305. Indians of North America (3) Prerequisite: Consent of instructor. Surveys of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence. Three hours each week.

ANT 306. Principles of Kinship and Social Organization (3) Prerequisite: Anthropology 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns. Three hours each week.

ANT 307. New World Archaeology (3) Prerequisite: Anthropology 105 or 207 or consent of instructor. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered. Three hours each week.

ANT 308. Marine Archaeology: Methods and Theory (3) Prerequisite: Anthropology 207, Diver's Certificate, 310 corequisite. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized. Three hours each week.

ANT 309. Environmental Anthropology (3) Prerequisite: Anthropology 105 or 206 or 207 or consent of instructor. A study of cultural adaptations as responses of human populations to varied environments; this course will focus upon cultural vs. biological adaptation from the archaeological past to the ethnographic present.

ANT 310. Marine Archaeology: Field Practicum (3-6) Prerequisite: Anthropology 207, Diver's Certificate, 308 corequisite. Practical field methods will be taught utilizing

actual underwater prehistoric or historic sites. Survey techniques, excavation, record-keeping and preservation will be stressed and adapted to a submarine environment.

ANT 311. Field Methods in Archaeology (3-6) Prerequisite: Anthropology 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

ANT 312. Historical Archaeology (3) Prerequisite: Anthropology 105 or consent of instructor. Substantive investigation of the special excavation and analysis procedures, subject matter, and goals of archaeology as applied to the historic past of North America. Special emphasis will be placed upon historic archaeological sites in the local (Southeastern North Carolina) region. Lecture, laboratory and field work involved. Three hours each week.

ANT 317. The Human Condition in Latin America (3) Prerequisite: Anthropology 105 or consent of instructor. This course applies the anthropological perspective to the study of the complex national cultures of Latin America. Topics covered focus on the problem of relating peasant communities, small towns, urban slums, middle class neighborhoods, and clubs and social networks to regional and national institutions. Three hours each week.

ANT 320. Human Origins (3) Prerequisite: Anthropology/Earth Sciences 210 or consent of instructor. Classification and history of human evolution deduced from the fossil record and molecular data. Discussion of Tertiary hominoids and emergence of humans with emphasis on Australopithecines and later Pleistocene hominids. Three hours each week.

ANT 322. Primate Biology and Behavior (3) Prerequisite: Anthropology 210 or consent of instructor. Ecology, social behavior, and functional morphology and classification of living primates (prosimians, monkeys, and apes); their evolutionary history and development.

ANT 324. Human Biological Variation (3) Prerequisite: Anthropology 210 or consent of instructor. Nature and extent of heritable differences among human populations in evolutionary perspective. Consideration of effects of environmental factors on genic expression. Three hours each week.

ANT 345. Method and Practice in Cultural Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of ethnographic field methods through selected readings demonstrating field techniques of major figures in cultural anthropology, both past and present. Practice involves exercises in participant-observation, indepth interviewing, survey research, photographic analysis, and tape recordings of cultural events. Three hours each week.

ANT 350. Maritime Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of fishermen, navigators, boatbuilders, and seamen. This course traces the origins and development of human maritime adaptations in selected regions of the world. Themes include primitive and traditional fisheries, technological innovation, fisheries management and law of the sea. Three hours each week.

ANT 387. (Art 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition, and education. Three hours each week.

ANT 387-51. (Art 387-51) Museum Studies Practicum (1) Prerequisite: Permission of instructor. Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ANT 411. Advanced Field Training in Archaeology (3) Prerequisite: Anthropology 105, 207, 311, and consent of instructor. Supervisory training for field archaeologists. Students direct specific aspects of archaeological excavation, including research design, data recovery, daily site management, and field analysis. For the advanced archaeology student only. Three hours each week.

ANT 430. (Biology 430) Evolutionary Biology (3) Prerequisite: Biology 335 (Genetics). Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three hours each week.

ANT 450. History of Anthropological Theory (3) Prerequisite: Six hours of anthropology above the introductory level or consent of instructor. This course traces the development of anthropological theory through the research and writings of key figures in the field. Attention is directed toward social and intellectual contexts out of which anthropological theories emerge. Three hours each week.

ANT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

ANT 495. Topical Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

ANT 499. Honors Work in Anthropology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 71.

Sociology

Dr. Blanks, Dr. Dixon, Dr. Faulkner, Dr. LaGrange, Dr. Levy, Dr. McNamee, Dr. Miller, Dr. Polgar, Dr. Scalf, Dr. Shevach, Dr. Tjaden, Dr. Willis.

Requirements for a concentration in Sociology for the B.A. degree: Sociology 105, 306, 360, 406, 460, 490, and 18 additional hours, 12 of which must be at the 300-400 level. Statistics 205 and Computer Science 105 or Sociology 306-51 are required. Collaterals will be decided in consultation with each advisee. Within Sociology some areas of emphasis are deviance and social control, demography and environmental studies, urban and community studies, family and leisure studies, organizations and bureaucracy, and medical and gerontology. A "C" grade point average over-all is required on departmental courses, and at least a "C" grade is mandatory on specific courses required in the department.

Criminal Justice and Social Work are areas of specialization in the department. The department offers some alternatives to the above-listed requirements for students specializing in Criminal Justice or Social Work. The alternative requirements are available in the department.

Criminal Justice Course Descriptions

(Department of Sociology and Anthropology)

CRJ 201. Introduction to Criminal Justice (3) A study of the various components of North Carolina's criminal justice system will include an analysis of the structure and function of law enforcement agencies, the court system, corrections and probation systems. Three hours each week.

CRJ 240. Issues in Criminal Justice (3) This course will be a study of crime, lawlessness, civil unrest and violence as issues relating to the administration of criminal justice, focusing on the current role of the system, the problems arising from attempting to fill the role, and some role modification that will improve the general operation of the criminal justice system. Three hours each week.

CRJ 306. (Social Work 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

CRJ 340. Police in Society (3) Prerequisite: Criminal Justice 201. Evolution of law enforcement systems and practices through the ages. Emphasis will be placed on the effects of societal changes and on survey of comparative police systems. Three hours each week.

CRJ 350. Criminal Courts and the American Justice System (3) Prerequisite: Criminal Justice 201. This course examines the social dynamics of American Criminal Courts. Primary emphasis is placed on the pivotal role of the court as an agent of social control. Relationships and interactions between the courthouse workgroup (police, prosecutor, defense attorney, judge) are examined. The courtroom roles assumed by members of society (witnesses, victims, defendants, jurors) are discussed. Visits to State and Federal Courts are included in course requirements. Three hours each week.

CRJ 395. Corrections (3) Prerequisite: Criminal Justice 201. An historical review of societal patterns of punishment, and in-depth analysis of the diversity of alternatives to incarceration, and an examination of practical data related to counselor-counselee relationships in correctional settings are course objectives. Three hours each week.

CRJ 405. Criminal Justice Administration (3) Prerequisite: Criminal Justice 201, 240, and consent of instructor. A concentration on management techniques for each administrative segment of criminal justice: the police, the courts, prosecution/defense, probation, parole and corrections. It will offer alternative models, based on a system approach to function and role, that relate each criminal justice sub-system administratively to the others. Three hours each week.

CRJ 450. Criminal Justice Theory (3) Prerequisite: Criminal Justice 201 plus six additional hours in Criminal Justice. An analysis of the development of theories of justice and crime control. The theories and principles upon which the American system of justice is based are covered. Three hours each week.

CRJ 490. Criminal Justice Practicum (3-6) Prerequisite: Junior or senior standing and consent of instructor. A course designed to acquaint students with the criminal justice agencies of all governmental levels. Observation of agency programs and activities in applied criminal justice are integrated with formalized knowledge gained in the classroom to provide the student with beginning knowledge, skills and attitudes consistent with his career plans.

CRJ 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

CRJ 495. Topical Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in the regular courses.

For 292 and 492, see explanation on p. 71.

Social Work Course Descriptions

(Department of Sociology and Anthropology)

SWK 235. Introduction to Social Work (3) History, methods, and practice in professional social work in the United States. Three hours each week.

SWK 245. Human Behavior in the Social Environment (3) Prerequisite: Social Work 235. A survey of the human behavior from a social systems standpoint. Emphasis on concepts and theories relevant to social work intervention with individuals, families, groups, organizations, and communities. A theoretical foundation for specialized areas of casework, group work, and community organization is provided. Three hours each week.

SWK 301. Social Casework Methods (3) Prerequisite: Social Work 235. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and utilization of systematic processes of problem solving in the delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

SWK 302. Social Group Work Methods (3) Prerequisite: Social Work 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required. Three hours each week.

SWK 306. (Criminal Justice 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

SWK 310. Programs and Policies for Older Americans (3) Prerequisite: Social Work 235. Health, social, and income needs of an aging population will be related to current laws, programs, administrative networks, and politics. Current issues in the development of programs such as age-integration, community based services, advocacy and protection will be covered. Three hours each week.

SWK 318. Social Work and Health Care Delivery (3) Prerequisite: Social Work 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

SWK 336. Suicidology and Crisis Intervention(3) Prerequisite: Social Work 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventative techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises. Three hours each week.

SWK 396. Community Organization and Social Practice (3) Prerequisite: Social Work 235. The course analyzes a variety of forms of community organization practice, focusing on definition of goals, values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in community life. Community needs and resources available to meet these needs are studied. Three hours each week.

SWK 435. Social Welfare Policies (3) Prerequisite: Social Work 235, 301, and 302. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in develop-

ing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services, policies and programs are being developed by our society and other countries. Three hours each week.

SWK 490. Social Work Practicum (3-6) Prerequisite: Consent of instructor. A field experience in selected social agencies designed to permit student application and integration of cognitive and affectual learning with a formalized service system. Learning experiences and content are designed to gain and demonstrate beginning knowledge, attitudes and skills which are consistent with the concepts of social practice. The student will participate in a two hour weekly seminar.

SWK 490-51. Social Work Laboratory (1) Prerequisite: Social Work 490 corequisite. Integration of practicum and theory through the discussion of selected topics related to social work practices. To be taken concurrently with Social Work 490. Two hours each week.

SWK 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SWK 495. Topical Seminar (1-3) Prerequisite: Sociology 105, Social Work 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

For 292 and 492, see explanation on p. 71.

Sociology Course Descriptions

(Department of Sociology and Anthropology)

SOC 105. Introduction to Sociology (3) Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed. Three hours each week.

SOC 110. Sociology in Contemporary Life (3) An introductory level course designed to enable students to think about and interpret the social world and events around them. Emphasis will be placed on discovering your social self, understanding social interaction, and interpreting the relationship of the individual with modern industrial society. Three hours each week.

SOC 200. Sociology of Sport (3) A sociological examination of the rise of sport in contemporary society. Topics such as the social organization of sports, women and sports, sports and violence, inter-scholastic sports and achievement behavior, discrimination and sports, and the future of sport are covered. Three hours each week.

SOC 205. (Anthropology 205) Human Societies (3) The comparative study of human society and culture with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions – economy, marriage and kinship, politics and religion – which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamic of social process and cultural change are also introduced. Three hours each week.

SOC 215. Modern Social Problems (3) Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization. Three hours each week.

SOC 220. Sociology of Birth and Death (3) The examination of the sociological dimensions of "human entry and exit." The social organizational and cultural dimensions of birth and death will be considered in terms of rites of passage, bureaucratization, social movements, cultural differences, and historical and contemporary contexts. Three hours each week.

SOC 225. Collective Behavior and Social Movements (3) Analysis of social behavior that breaks from existing patterns and expectations, such as riots, crowds, revolution, and social movements. Three hours each week.

SOC 230. (Anthropology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are viewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

SOC 237. Sociology of Aging (3) This course covers sociological and social psychological aspects of growing old. Emphasizing a life-span perspective, the students will be introduced to the major theories and methods sociologists use to explain the aging process. Salient topics include age stratification, adjustment to major life events, housing patterns, and institutional care. Three hours each week.

SOC 305. Population (3) Prerequisite: Sociology 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them. Three hours each week.

SOC 306. Methods of Social Research (3) Prerequisite: Sociology 105, Statistics 205. Introduction to the logic and methods of sociological research. Topics include the logic of social scientific inquiry; the relationship between theory and research; problem formulation; research design; conceptualization and measurement; operationalization; sampling; modes of observation; index and scale construction; introduction to analysis and interpretation of quantitative data; and ethics and politics of social research. Three hours each week.

SOC 306-51. Methods of Social Research Laboratory (1) Prerequisite: Sociology 105 and Statistics 205. Basic instruction in SPSS computer programming techniques and applications to social scientific data management and analysis. Two hours each week.

SOC 315. Urban Sociology (3) Prequisite: Sociology 105. Analysis of the history and development, social organization, and problems of the city. Three hours each week.

SOC 316. Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

SOC 325. American Minority Relations (3) Prerequisite: Sociology 105. Analysis of the ascriptive bases of inequality in American society: race, ethnicity, religion and sex. Topics include sociocultural causes and consequences of prejudice and discrimination; institutionalized discrimination; and Europe immigration, ethnicity and assimilation. Three hours each week.

SOC 333. Sociology of Mental Illness (3) Prerequisite: Sociology 105. A sociological examination of the development and distribution of mental health and illness, particularly in the United States. Drawing from the works of relevant writers in the field, such as Scheff and Goffman, the course emphasizes the sociatal reaction approach to mental illness. Topics to be included are mental illness as deviance, the sociogenesis of mental disorder, and social stratification and mental illness. Three hours each week.

SOC 335. The Sociology of Deviant Behavior (3) Prerequisite: Sociology 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of non-sociological research and theories. Three hours each week.

SOC 337. Medical Sociology (3) Prerequisite: Sociology 105. A sociocultural analysis of the general area of health and illness. Emphasis is given to understanding the distribution of health and illness in the United States and its impact on the patient status. The course includes a discussion of the organization and use of health care services from a sociological perspective. Three hours each week.

SOC 340. Principles of Social Organization and Bureaucracy (3) Prerequisite: Sociology 105. Examination of theory and research on structure and processes of large scale formal organizations in Western society; consideration of industrial-commercial governmental, religious, military, political and educational organizations. Three hours each week.

SOC 345. Sociology of the Family (3) Prerequisite: Sociology 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family: socialization, mate selection, procreation. Three hours each week.

SOC 346. Sociology of Religion (3) Prerequisite: Sociology 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and cultural and religious differentiation and institutionalization. Three hours each week.

SOC 347. Sociology of Education (3) Prerequisite: Sociology 105. An examination of the socio-cultural factors operating at various levels of the educational process, from classroom to school system to community, in light of the changing roles of the child and education in a complex industrial society. Three hours each week.

SOC 348. Sociology of Leisure and the Arts (3) Prerequisite: Sociology 105. This course surveys existing theory and research with respect to the concept of leisure. Specific attention is devoted to sociological analyses of trends, differentials, and time expenditures which population categories exhibit in recreational, sporting, and arts activities. Three hours each week.

SOC 350. Sex Roles in Society (3) Prerequisite: Sociology 105. The differentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change. Three hours each week.

SOC 355. Criminology (3) Prerequisite: Sociology 105. The nature, variation and causes of crime are studied as aspects of the American culture. Three hours each week.

SOC 360. Foundations of Social Thought (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research. Three hours each week.

SOC 365. Social Psychology (3) Prerequisite: Sociology 105. A sociological analysis of human social interaction. Topics include symbolic interaction, socialization, interpersonal relations. Focus is on social and cultural influences on individual and group behavior. Three hours each week.

SOC 366. Social Change (3) Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change. Three hours each week.

SOC 375. Juvenile Delinquency (3) Prerequisite: Sociology 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society. Three hours each week.

SOC 385. The Community (3) Prerequisite: Sociology 105. Structure, process and change in modern communities. Topics include analysis of the concept of community; the community as a social system; major community functions; relationships between the community and larger society; community stratification, power structure and organization. Three hours each week.

SOC 386. Sociology of Work and Occupations (3) Prerequisite: Sociology 105 and three additional hours in Sociology or Economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure. Three hours each week.

SOC 390. Social Structures (3) Prerequisite: Sociology 105. The course examines the concept of social structure as differentiated social positions and units and their interrelations, including bases of differentiation and integration. Examines patterns of a variety of social structures – the overall structure and patterned development of society, the structure of culture, the structure of deviance, the structure of interaction – considering consequences and interrelations. Three hours each week.

SOC 406. Sociological Methods of Social Research (3) Prerequisite: Sociology 306. The student will be introduced to the process of constructing theories relative to social relations, and to their practical applications in the conduct of actual survey research. There will also be a segment of time used to introduce those non-parametric statistics that are most often used with either nominal or ordinal data. A segment of the course will also be devoted to introducing the student to SPSS computer programming. Three hours each week.

SOC 415. Power and Privilege (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination of social stratification as the system of distribution of privilege, power and prestige in modern and traditional societies. Discussion of major theories and theorists of stratification; the structure and process of systems of social inequality; the causes, correlates and consequences of socially structured inequality. Three hours each week.

SOC 449. Sociology of Law (3) Prerequisite: Sociology 105 and junior/senior standing. An analysis of the role of law in society. Special emphasis will be given to the relationship between law and social organization and the relation of sociocultural changes to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivistic-individualistic process and as a reflection of sociocultural values. Three hours each week.

SOC 460. Contemporary Sociological Thought (3) Prerequisite: Sociology 360. Coverage of the major contemporary theoretical approaches in sociology is provided. The development of structural-functionalism, positivism, Marxian thought, interactionism, ethnomethodology, and structuralism are analyzed in terms of the structure and purposes of theory. Three hours each week.

SOC 490. Senior Project (3-6) Prerequisite: Sociology 105, 306, 406 and senior status. A personal study of a segment of the community will be undertaken by each major. There will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting.

SOC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SOC 495. Topical Seminar (1-3) Prerequisite: Sociology 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

SOC 499. Honors Work in Sociology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 71.

SPANISH

(See Modern Languages)

SPEECH COMMUNICATION

(See Creative Arts)

CAMERON SCHOOL OF BUSINESS ADMINISTRATION

Norman R. Kaylor, *Dean*

The Cameron School of Business Administration of The University of North Carolina at Wilmington has planned its courses and curricula to be of use to the graduate in a position of responsibility as an owner of an independent business enterprise or as an employee at the decision making level in private business or in government and other non-profit organizations.

The primary function of the Cameron School of Business Administration is to teach students the basic body of knowledge they will need to enter a career in business or government and to promote the development of proficiency in practical application. The academic programs provide graduates with career opportunities in manufacturing and service organizations, marketing and sales, government, accounting firms, banks and other financial institutions. The graduate is also prepared to enter law school and graduate programs in public administration as well as for graduate study in accountancy, business administration, and economics. As complementary functions, through individual faculty efforts and the Center for Business and Economics Services, the Cameron School of Business Administration undertakes research in appropriate areas and provides related services to business and governmental units.

DEGREE PROGRAMS AND REQUIREMENTS

The B.S. degree is offered in four areas of concentration: Accountancy, Business Management, Marketing, and Economics. Finance options are offered under the Business Management and Economics concentrations. The B.A. degree with a concentration in Economics is offered for those students who want to study Economics in the liberal arts tradition.

Requirements for admission to the Cameron School of Business Administration are listed on page 68. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better. The following courses must have been completed at time of application: English 101-102, Mathematics 111 and 205, Accounting 201, and Economics 221. During the semester of application each applicant must be enrolled in or have completed: Business 217, Economics 222, and Accounting 203 or 204. Students seeking a concentration in Accountancy should enroll in Accounting 204; all others should enroll in Accounting 203. Students enrolling in the B.A. program in Economics are not required to complete Accounting 201, 203 or 204 and may substitute Statistics 205 or 215 for Business 217.

Students may qualify for the B.S. degree by successfully completing the requirements as stated under Academic Regulations and Procedures, the courses designated for the degree program, and attaining a minimum grade point average of 2.0 on all courses attempted in the Cameron School of Business Administration. Students seeking the B.S. degree with a concentration in Accountancy must also earn a minimum grade point average of 2.0 on all accounting courses attempted in the Cameron School of Business Administration. The B.A. degree requires a minimum grade point average of 2.0 on all economics courses attempted and in the combined concentration and collateral courses attempted.

Electives are to be chosen by the student after consulting with the faculty advisor, with no more than 9 semester hours of free electives selected from courses in the Cameron School of Business Administration.

ACCOUNTANCY

Mr. Appleton, *chairman.* Dr. Becker, Mr. Earney, Dr. Kaylor, Mr. Roscher, Mrs. Sawyer, Ms. Wendel, Mr. Zeko.

The B.S. degree with a concentration in Accountancy provides the student with the analytical foundation of the discipline of Accountancy. Included are the special tools and techniques of planning and control using financial and managerial accounting, income taxes, cost analysis, and systems.

Students establish qualifications for careers as professional certified public accountants, and in industrial, governmental, and other positions requiring managerial and analytical skills. The accounting concentration provides an excellent background for graduate and other professional education.

The elements of planning, administration, and control covered in the accounting courses are essential to all areas of business. Many of the courses offered benefit students concentrating in other fields by furnishing a comprehensive background of business procedures and financial relationships. Likewise, students concentrating in Accountancy find it advantageous to elect as many courses as possible in other areas of business, especially the quantitative fields.

A graduate of the Cameron School of Business Administration who has completed a concentration in Accountancy is permitted by the State Board of Accountancy of North Carolina to write the CPA examination. The student is also qualified by the Institute of Management Accounting to write the CMA examination.

Requirements for a concentration in Accountancy for the B.S. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 311, 313, 314, 355, 357, 455, Finance 335, and Marketing 340.

(b) Concentration Courses: Accounting 204-303-304, 305, 404, 407, and two courses from the following: Accounting 307, 309, 402, 405, and 406. Students planning to write the CPA examination are advised to elect Business 412 and additional accounting electives including Accounting 309, 402, and 405.

Accountancy Course Descriptions

(Department of Accountancy)

ACG 201. Financial Accounting (4) Prerequisite: Mathematics 111. An introduction to the basic framework of accounting for both students concentrating in accountancy and other disciplines. Includes preparation of financial records, working papers, and financial statements, and analysis of the major financial statements with emphasis on the underlying accounting concepts and constraints.

ACG 203. Managerial Accounting (3) Prerequisite: Accounting 201. An introduction to the concepts and techniques used by management to analyze and interpret accounting data in the organization. Not open to students seeking a concentration in accountancy.

ACG 204-303-304. Intermediate Accounting I, II, and III (3-3-3) Prerequisite: Accounting 201. Analysis of traditional financial accounting topics and theory. Examines recent developments in accounting measurement and promulgations of the leading

professional accounting organizations. ACG 204 emphasizes development of accounting standards and theory, financial statements, current assets and current liabilities. ACG 303 emphasizes plant assets, long-term investments, long-term liabilities, stockholders equity, revenue recognition and income tax allocation. ACG 304 emphasizes pensions and leases, changes in financial position, accounting for changing price levels, financial statement analysis, international operations, corporate liquidations and reorganizations, and segment and interim reporting.

ACG 305. Cost Accounting (3) Prerequisite: Accounting 201. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

ACG 307. Administrative Accounting and Control (3) Prerequisite: Accounting 203 or 305. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

ACG 309. Accounting for Business Combinations (3) Prerequisite: Accounting 303. A study of accounting problems in parent-subsidiary interrelationships, mergers and consolidations, partnerships, and non-profit accounting. Emphasis on consolidated financial statements.

ACG 402. Specialized Accounting Problems (3) Prerequisite: Accounting 304, 305, and 309. Advanced study of accounting practice and theory with emphasis on preparation for the CPA examination. Includes study of official pronouncements of the American Institute of Certified Public Accountants and the Financial Accounting Standards Board.

ACG 404. Federal Income Taxes I (3) Prerequisite: Accounting 201. Study of federal income taxation of individuals. Includes business expenses and revenues, depreciation, and property transactions and the history and development of taxation.

ACG 405. Federal Income Taxes II (3) Prerequisite: Accounting 404. The study of corporate, partnership, estate and trust taxation. Emphasis is on corporation and partnership organization, operations, distributions, liquidation and reorganization.

ACG 406. Non-Profit Organization Accounting (3) Prerequisite: Accounting 303. Accounting for not-for-profit organizations including governments, colleges and universities, hospitals, charities, and other not-for-profit organizations. Emphasis is on objectives and preparation of financial statements, the use of managerial reports, and budgetary data.

ACG 407. Auditing (3) Prerequisite: Accounting 304. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

ACG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ACG 498. Accounting Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of professional accounting skills required in the academic environment to the role of the practicing professional accountant. The participant will receive practical training and experience under the guidance of the accounting staff of a local business or government organization and a faculty supervisor. Open only to students concentrating in accountancy. Available internships will be filled on a competitive basis.

ACG 499. Honors Work in Accounting (2-3) Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS AND FINANCE

Dr. Hill, *chairman.* Dr. Carter, Dr. Comeskey, Dr. Copley, Dr. Farrell, Dr. W. Hall, Dr. Lawson, Dr. Morgan, Dr. Wadman.

The Economics and Finance programs prepare students for careers which emphasize an understanding of the operation of the economy and the proper choice of policies by both government and business enterprises. The Economics concentrations represent a more general area of study, preparing the student to enter government service, industry, or to pursue a graduate program in economics, business, public administration or other social science disciplines.

The B.S. degree with a concentration in Economics is designed to provide orientation of the individual and the firm in economic society. The student is required to supplement the study of economics with a variety of business and accounting courses.

The B.A. degree with a concentration in Economics is designed for the student who wants to study Economics in the liberal arts tradition. The study of a wide variety of economics courses is supplemented by a study of history and the social sciences. Both degree programs develop an understanding of contemporary economic problems and institutions and provide a study of economic issues both in an historical setting and under conditions of change.

The field of Finance consists of three separate but related areas – business finance, investments, and financial institutions. The Finance curriculum prepares students for graduate study or for careers in corporate financial management, the investments and securities business, and the management of banking and nonbank financial institutions. The generalized applicability of finance and the basic tools of financial analysis are emphasized in the courses.

Requirements for a concentration in Economics for the B.S. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 313, 314, 355, Economics 320, 323, 495, Finance 335, and Marketing 340.

(b) Students planning a study of general economics must complete, in addition to the courses named in (a) above, Economics 321, 322, 324, 422, and two courses selected from the following, one of which must be numbered above 399: Economics 325, 326, 328, 329, 421, 426, 427, and 428.

(c) Students planning a study of Economics with an emphasis on Finance must complete, in addition to the courses named in (a) above, Economics 321, 322, 324, Finance 330, 436, and either Finance 430 or 437.

Requirements for a concentration in Economics for the B.A. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Economics 321, 322, 324, 328, 326 or 421, 495, and six additional hours in Economics courses numbered above 299.

(b) In addition to the courses named in (a) above, the student must complete 21 semester hours from at least two of the following: Anthropology, Georgraphy, History, Political Science, Psychology, Sociology. A minimum of six hours must be taken in at least two areas, and at least nine hours must be courses numbered above 299.

Economics Course Descriptions

(Department of Economics and Finance)

ECN 125. Survey of Economics (3) An introduction to economics principles for non-business and non-economics majors. Current analysis rather than theoretical analysis is utilized to present and show the relevance of economics principles.

ECN 221. Principles of Economics—Micro (3) Prerequisite: Mathematics 111. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

ECN 222. Principles of Economics—Macro (3) Prerequisite: Economics 221. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income and prices at an introductory level.

ECN 320. Managerial Economics (3) Prerequisite: Business 314. The theory and application of economics principles and methodology to the decision making process under conditions of uncertainty. Includes the following topics: demand theory and analysis; cost and production conditions facing the firm; forecasting; resource allocation and management of inputs; pricing, profit strategies, and market structure; and finance and investment decision making for the firm.

ECN 321. Intermediate Price Theory (3) Prerequisite: Mathematics 205 and Economics 222. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

ECN 322. National Income Analysis (3) Prerequisite: Economics 321. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and role of monetary and fiscal policy in the determination of such.

ECN 323. Business, Government and Society (3) Prerequisite: Economics 222. A broad study of the role of business enterprises in society and their relationships with government. Examines influence on decision making of changing social values, changing political, legal, and regulatory environments.

ECN 324. Money and Capital Markets (3) Prerequisite: Economics 222. An introduction to the financial and economic environment within which a firm must operate. Analysis of the sources and the cost and availability of funds in a domestic and international setting; analysis of international monetary flows; financial decision making in an integrated world economy.

ECN 325. (Environmental Studies 325) Environmental Economics (3) Prerequisite: Economics 125 or 221. Application of economics concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

ECN 326. Comparative Economic Systems (3) Prerequisite: Economics 125 or 222. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

ECN 327. Money and Banking (3) Prerequisite: Economics 222. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve System. An overview of banks and other financial institutions.

ECN 328. Public Finance (3) Prerequisite: Economics 222. Study of state, local, and federal government revenue and expenditures; theory of taxation, tax shifting and incidence; theory of public goods, fiscal neutrality and government regulation; methods of achieving efficiency in government beneift-cost analysis, program budgeting (PPB), and pricing of government services.

ECN 329. Industrial Organization (3) Prerequisite: Economics 222. A theoretical and empirical study of how the structure of industry affects the conduct and performance of the firm; covers government regulation, control and influence in business activity with respect to structure, conduct and performance.

ECN 421. History of Economic Thought (3) Prerequisite: Economics 322. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

ECN 422. Econometrics (3) Prerequisite: Business 217 or Statistics 322 and Economics 321. An introduction to the formalization of economic hypotheses into testable relationships and the application of appropriate statistical techniques. Theoretical aspects are covered, but primary emphasis is on computer application utilizing regression analysis.

ECN 426. International Trade and Finance (3) Prerequisite: Economics 320 or 321. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

ECN 427. Labor Economics (3) Prerequisite: Economics 320 or 321. An analysis of the demand for and the supply of labor at the individual and the aggregate level; labor unions and collective bargaining.

ECN 428. Regional Growth and Development (3) Prerequisite: Economics 320 or 321. Theories of subnational or regional economic growth. Measures of regional economic policies to alleviate problems resulting from disparate rates of regional economic growth.

ECN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ECN 495. Senior Seminar in Economics (3) Prerequisite: Economics 322 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions and economic priorities require the use of new approaches to deal with current issues.

ECN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Finance Course Descriptions

(Department of Economics and Finance)

FIN 235. Personal Finance (3) Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings and investments. Recommended elective for non-business majors.

FIN 330. Principles of Investments (3) Prerequisite: Accounting 201 or Economics 222. An introduction to alternative investments, with major emphasis on financial instruments. Practical descriptive material and relevant theoretical applications. Topics include stocks, bonds, options and REITs.

FIN 331. Real Estate (3) Prerequisite: Accounting 201 and Economics 222. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

FIN 332. Risk Management and Insurance (3) Prerequisite: Accounting 201 and Economics 222. An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

FIN 335. Business Finance (3) Prerequisite: Accounting 203 or 204 or 305 and Business 217 or Statistics 322 and Economics 222. An introduction to the finance function of business enterprise and to the analytical techniques used in making investment and financing decisions.

FIN 430. Securities Valuation and Portfolio Analysis (3) Prerequisite: Finance 330 and 335. An analytical approach to the valuation of stocks, bonds and options and the placement of those securities in Markowitz-efficient portfolios. Technical and fundamental analysis, market efficiency and valuation methods are examined. Both application and theory are emphasized.

FIN 436. Financial Management (3) Prerequisite: Finance 335. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized, including both working capital and fixed capital requirements.

FIN 437. Management of Financial Institutions (3) Prerequisite: Economics 324 and Finance 335. A case study course in the management of financial institutions with emphasis on commercial banks and savings and loan associations. Major emphasis on defining the functional areas within the institutions and the associated decision making process.

FIN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

FIN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

MANAGEMENT AND MARKETING

Dr. Adams, *chairman.* Dr. A. Anderson, Dr. J. Anderson, Dr. Badarinathi, Mr. Burke, Mr. Davenport, Dr. Garris, Dr. Harper, Mr. Honeycutt, Ms. Honeycutt, Mr. Lewis, Ms. Marshall, Dr. McInerney, Dr. Sherman, Dr. Turner, Dr. West.

The Management and Marketing degree programs provide preparation for careers in product and service organizations. Each program of study is based on a broad educational foundation combined with courses in Accounting, Finance, Management, Marketing, and Economics. Both programs are also designed for students who wish to pursue other professions in legal, governmental, and not-for-profit institutions.

Students are permitted some latitude in selecting courses and may choose to concentrate in Management or Marketing. Within the B.S. degree program with a concentration in Business Management, the student may elect an emphasis in business management, finance, or a program of courses designed to meet the specific interest of the student. Within the field of Management, the student selects from courses in human resource management, organization behavior, small business management, and business information systems and should consider additional electives in computer science and the social sciences.

Requirements for a concentration in Business Management for the B.S. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 311, 313, 314, 355, 357, 455, Finance 335, and Marketing 340.

(b) Students seeking a study of Business Management will complete, in addition to the courses named in (a) above, Business 358, 412, Economics 320, and three courses from the following: Business 310, 356, 416, 453, 454, 456, 495, Marketing 344, 448.

(c) Students seeking a study of Business Management with an emphasis in Finance will complete, in addition to the courses named in (a) above, Economics 320, 324, Finance 330, 436, 430 or 437, and one course selected from the following: Accounting 404, Economics 422, Finance 331, 332, 430, and 437.

(d) Students seeking a study of Business Management in an area of particular interest, such as small business management or human resource management, will complete, in addition to the courses named in (a) above, Business 412, Economics 320, and four courses in the Cameron School of Business Administration numbered above 299 (except 491 and 498) with prior approval of the department chairman.

Requirements for a concentration in Marketing for the B.S. degree:

(a) In addition to basic studies and the courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 311, 313, 314, 355, 357, 455, Finance 335, and Marketing 340.

(b) In addition to the courses named in (a) above, the following courses must be completed: Marketing 341, 445, 448, and three courses from the following: Business 412, Economics 320, Marketing 344, 346, 347, 349, 442, 495.

Business Course Descriptions

(Department of Management and Marketing)

BUS 217. Statistical Analysis for Business and Economics (3) Prerequisite: Mathematics 111. Classification and presentation of business and economics data, statistical inference including estimation and hyphothesis testing procedures, Bayesian inference, correlation and regression analysis, expected value, time series, and index numbers.

BUS 310. Business Communications Skills (3) Prerequisite: English 102, Accounting 201, Economics 221. Fundamentals of business communications with emphasis on preparing formal business reports. Emphasis is on the communication processes in management, including primary and secondary research, business writing, and making oral presentations.

BUS 311. Legal Environment of Business (3) Prerequisite: Junior or senior standing. Study of the organization and role of business enterprises in society and their relationships in government. Examines how the legal environment is influenced by changing social and ethical values. Topics include agency, antitrust, forms of business organization, environmental regulation, equal opportunity, labor law, product liability, and property rights.

BUS 313. Computer Applications in Business (3) Prerequisite: Business 217. An introduction to information systems concepts and their applications in the business environment. Emphasis on the skills necessary to communicate with the computer including an introduction to programming using BASIC and utilization of software for analyzing business situations.

BUS 314. Introduction to Management Science (3) Prerequisite: Mathematics 205, Business 217 or Statistics 322, Accounting 201 and Economics 222. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, PERT/CPM, waiting lines, and simulation.

BUS 355. Principles of Management (3) Prerequisite: Accounting 203 or 204 and Economics 221. Managerial principles and practices universally applicable in planning, organizing, staffing, leading, and controlling human and economic resources. The evolution of management thought and ethics is an integral part of the course.

BUS 356. Human Resource Management (3) Prerequisite: Business 355. Evaluation of concepts and approaches used in human resource management and development. Study of manpower planning, selection procedures, performance review, compen-

sation and benefits, equal employment/affirmative action factors, and labor relations. Emphasis is on how personnel specialists and operating managers can improve organizational performance.

BUS 357. Production Management (3) Prerequisite: Business 314 and Business 355. Introduction to the situations operating managers face in the production-operations area. Analysis of concepts, tools and techniques, including production planning and control, materials management, inventory control, and managing the labor force. Particular attention directed to the study of different types of production processes.

BUS 358. Organizational Behavior (3) Business 355. Application of behavioral science concepts in the management of organizations. Emphasis on increasing productivity on the individual, group, and organizational level. Particular attention directed to analyzing organizations, developing motivational programs, designing enriching jobs, leadership development, and managing organizational change.

BUS 412. Commercial Law (3) Prerequisite: Junior or senior standing. Study of the commercial legal environment in which business enterprises operate. Examines the law of contracts, sales and warranties, security interests, commercial paper, and debtor and creditor rights.

BUS 416. Business Information Systems (3) Prerequisite: Business 313 and Business 355. A study of basic systems concepts and information concepts and their application to the analysis, design, implementation and evaluation of computer-based business information systems.

BUS 453. Management of Small Business (3) Prerequisite: Business 311, Business 355, Marketing 340, Finance 335 and senior standing. Examination of the factors involved in managing an existing small business. Emphasis on tailoring the marketing mix to specific target markets, financial planning and control, and operational aspects of small business including supplier relations, taxation, and credit collection.

BUS 454. Entrepreneurship (3) Prerequisite: Business 453. Primary focus on starting a new business. Specific areas include identifying business opportunities, conducting feasibility studies, developing the business plan, evaluating alternative ways of financing new ventures, identifying the appropriate legal form of organization, and managing for tax planning. Purchasing an existing business and acquiring a franchise are also addressed.

BUS 455. Business Policy (3) Prerequisite: Business 311, 355, 357, Marketing 340, and Finance 335. Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is used.

BUS 456. Industrial Relations (3) Prerequisite: Business 356. Analysis of management techniques for the administration of labor agreements; study of collective bargaining and union-management relations; and evaluation of labor relations in union and non-union organizations. Case studies provide realistic experience for both private and public sector labor relations.

BUS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

BUS 495. Senior Seminar (3) Prerequisite: Business 355 and senior standing. Special topics in management not regularly addressed in other management courses.

BUS 498. Internship in Management (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of management knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

BUS 499. Honors work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Marketing Course Descriptions

(Department of Management and Marketing)

MKT 340. Principles of Marketing (3) Prerequisite: Accounting 203 or 204 and Economics 221. Basic functions, institutions and problems involved in the distribution of goods and services. Emphasis is on integrating the managerial approach with the behavioral, institutional and environment factors.

MKT 341. Marketing Research (3) Prerequisite: Business 217 and Marketing 340. The development and utilization of marketing research techniques for decision making. Emphasis on specifying, obtaining, analyzing, interpreting, and reporting information in the marketing context. Particular attention directed toward Bayesian decision analysis, product research, estimating market potential, sampling, experimental survey, design and test marketing.

MKT 344. Distribution Management (3) Prerequisite: Marketing 340. An introduction to physical distribution from an institutional and managerial perspective. Study of channel structure, legal factors, performance measurement, inventory control, and trends in the channel environment. Emphasis on the design and management of a physical distribution system.

MKT 346. Retail Management (3) Prerequisite: Marketing 340. Examination of the principles and methods of retailing. Study of social, political, ethical, and economic environments. Emphasis on market segmentation, merchandising, and managerial control.

MKT 347. Promotion Management (3) Prerequisite: Marketing 340. Study and evaluation of the concepts and procedures useful in promoting an organization to its external publics. Emphasis on advertising and the mass media, including communication strategy, media use, budgeting, and public relations.

MKT 349. Consumer Behavior (3) Prerequisite: Marketing 340. Application of the principles and techniques of the behavioral sciences to marketing situations. Emphasis placed on how and why consumers behave and how to use this knowledge to develop effective marketing programs. Particular attention to attitude formation, family consumption, decision making, motivation research, and the influences of social status.

MKT 442. International Marketing (3) Prerequisite: Marketing 340. Focus is on the special framework in which international marketing is conducted. Influence of international institutions, culture, stage of economic development, geography and

demography are covered. Emphasis on multinational marketing problems and opportunities in an ever changing world.

MKT 445. Marketing Management (3) Prerequisite: Business 355, Marketing 341 and senior standing. Concepts of demand analysis, formulating marketing strategy, establishing policies and procedures, coordinating marketing action, and evaluating performance.

MKT 448. Sales Management (3) Prerequisite: Business 355 and Marketing 340. Focus on developing and maintaining an effective sales organization. Emphasis on the role of the salesperson, motivating the sales force, and designing and implementing selling strategies.

MKT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MKT 495. Senior Seminar (3) Prerequisite: Marketing 340 and senior standing. Special topics in marketing not regularly addressed in other marketing courses.

MKT 498. Internship in Marketing (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of marketing knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or a not-for-profit organization and a faculty supervisor.

MKT 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

SCHOOL OF EDUCATION

Roy E. Harkin, *Dean*

The School of Education at The University of North Carolina at Wilmington offers programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle School Education, and Special Education and programs leading to secondary (9-12) and special subjects (K-12) teacher certification. In addition, graduate programs in Elementary Education, Special Education and Educational Administration and Supervision are offered.

Responsibility for the degree and certification programs within the School of Education is shared by the Department of Educational Design and Management and the Department of Curricular Studies.

Students wishing to pursue teacher preparation programs must be formally admitted to the School of Education and to the Teacher Education Program. Requirements for admission are:

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
2. Completion of EDN 200, Teacher, School, and Society, with a grade of "C" or better.
3. Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).
4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

EDUCATIONAL DESIGN AND MANAGEMENT

Dr. Ellis, *chairman.* Dr. Applefield, Dr. Bryan, Dr. Doss, Dr. Earle, Dr. Harkin, Dr. A. Hayes, Dr. Hulon, Dr. Wagoner.

The Department of Educational Design and Management provides basic professional education courses for the undergraduate programs in Elementary, Secondary, and Special Education and is responsible for the program of study leading to the Master of Education degree in Educational Administration and Supervision.

The Master of Education program in Educational Administration and Supervision is described in the Graduate Studies section of this catalogue.

CURRICULAR STUDIES

Dr. H. Hayes, *chairman.* Dr. Bachner, Dr. Bartolome, Dr. Burton, Dr. Cleare, Dr. Gendernalik, Dr. Jones, Dr. LaNunziata, Dr. Meyers, Dr. Thomas, Dr. Wright.

The Department of Curricular Studies is responsible for the programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle School Education, and Special Education, the programs leading to secondary (9-12) and special subjects (K-12) teacher certification, as well as the programs leading to the Master of Education in Elementary Education and in Special Education.

Within the Bachelor of Arts degree program in Elementary Education, a student may concentrate in Early Childhood Education, which leads to North Carolina teacher certification in kindergarten through grade four, or in Intermediate Education, which leads to certification to teach in grades four through six.

The Bachelor of Arts program in Middle School Education leads to certification to teach in grades six through nine.

The Special Education program prepares teachers to serve mildly handicapped children from kindergarten through grade twelve and in various other service agencies and leads to North Carolina teacher certification in two areas of exceptionality: learning disabilities and mental retardation.

Each degree program is designed to meet North Carolina State Board of Education guidelines for teacher certification and includes recommended courses in basic studies, professional education and collateral areas, and a content specialization. Adjustments in program requirements are made as guidelines change.

The Master of Education programs in Elementary Education and Special Education are described in the graduate studies section of this catalogue.

DEGREE REQUIREMENTS FOR ELEMENTARY EDUCATION

Common Requirements for Early Childhood and Intermediate Education:

Basic Studies

Courses listed below are selected to meet North Carolina State Board of Education guidelines for elementary teacher certification. They only partially satisfy University basic studies requirements. To complete the University requirements, as listed on pages 69-71 of this catalog, additional courses in either the Humanities or Natural Science and Math areas will be needed. However, these courses may be taken as part of the content specialization.

Basic Skills

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (twelve semester hours)
- Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
- Communication 105
- History, six semester hours from the following: History 101, 102, 201, 202

Creative Arts, three semester hours from the following: Art 201, 202, or 204, or Music 105 or 115

Natural Science and Mathematics (ten semester hours)
- Natural Sciences: one laboratory course from Biology, Chemistry, Geology, or Physics
- Mathematics 141 and 142

Social and Behavioral Sciences (six semester hours)
- Political Science 101
- Sociology/Anthropology 205

Collateral Requirements

ART 385	Art in the Elementary School
MUS 325	Music Education for Elementary Teachers
PED 304	Health and Safety Education (K-9)
PHY 305	Science for Elementary Teachers

Professional Core

PSY 216	Educational Psychology
PSY 220	Child Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Development I
EDN 202	Instructional Development II

Professional Semester

EDN 410	Seminar in Education (K-4, 4-6, 6-9)
EDN 411	Practicum (K-4, 4-6, 6-9)

Requirements for a concentration in Early Childhood Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations (K-9)
EDN 322	Teaching of Mathematics (K-4)
EDN 334	Social Studies Curriculum and Instruction
EDN 336	The Teaching of Science (K-9)
EDN 344	Books and Materials for Early Childhood Education
EDN 348	The Communication Arts: Reading/Language Arts (K-4)
PED 386	Physical Education in the Primary Grades
EDN 431	Teaching in the Primary Grades

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listed below. Specialization in one of the four basic curriculum areas – Langauge Arts, Mathematics, Science, Social Studies – is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Art
Health and Physical Education
Language Arts
Mathematics
Music
Science
Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

Requirements for a concentration in Intermediate Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations (K-9)
EDN 323	Teaching of Mathematics (4-9)
EDN 334	Social Studies Curriculum and Instruction (K-9)
EDN 336	The Teaching of Science (K-9)
EDN 351	Reading/Language Arts Methods for the Middle School (4-9)
ENG 345	Literature for Youthful Readers
PED 387	Physical Education in the Intermediate Grades (4-9)
EDN 432	Interdisciplinary Curriculum and Instruction

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listed below. Specialization in one of the four basic curriculum areas – Language Arts, Mathematics, Science, Social Studies – is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Art
Health and Physical Education
Language Arts
Mathematics
Music
Science
Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR MIDDLE SCHOOL EDUCATION

Basic Studies

Basic studies courses specified below are selected to meet North Carolina State Board of Education guidelines for Middle School teacher certification. They only partially satisfy University basic studies requirements listed on pages 70-71 of this catalog. To complete University requirements, additional courses in Humanities or Natural Science and Mathematics will be needed. However, such courses may be taken as part of the content specialization.

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (12 semester hours)
Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
Communication 105
History
Two of History 101, 102, 201, 202

Creative Arts (three semester hours)
One from Art 201, 202, or 204, or Music 105 or 115

Natural Science and Mathematics (10 semester hours)
Natural Sciences: one laboratory course from Biology, Chemistry, Geology, or Physics
Mathematics 141, 142

Social and Behavioral Sciences (three semester hours)
Political Science 101

Collateral Requirements

Cultural Arts
Select six semester hours from the following: Art 201, 202, 204, 307, 385; Drama 130, 135, 136, 221, 225; Music 116, 117, 118, 361-62-63
Health and Physical Education
Physical Education 304, Health and Safety Education (K-9)

Professional Core

PSY 221	Adolescent Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Program Development I
EDN 202	Instructional Program Development II

Professional Semester

EDN 410	Seminar in Education
EDN 411	Practicum

Requirements for a concentration in Middle School Education for the B.A. Degree:

Professional Education

EDN 318	The Middle School
EDN 355	Developing Reading Competence in the Middle School
EDN 432	Interdisciplinary Curriculum and Instruction

Content Specialization

Two content area specializations must be selected, at least one of which must be from the four basic curriculum areas – Language Arts, Mathematics, Science, Social Studies. Specific course options and credit hour requirements are available from advisors or the department chairperson. A grade of "C" or better is required of all courses in the Professional Core and Professional Education concentration. Students may repeat courses in which they earned a grade of lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR SPECIAL EDUCATION

General Requirements in Special Education:

Basic Studies

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (nine semester hours)
- History: two of History 101, 102, 201, 202
- Communications 105

Creative Arts (three semester hours)
- Art 201, 202, or 204, or Music 105 or 115

Natural Science and Mathematics (13 semester hours)
- Biology 105
- Biology 235
- Mathematics 141
- Mathematics 142

Social and Behavioral Sciences (six semester hours)
- Psychology 105 or 145
- Sociology 105

Professional Core

EDN 200	Teacher, School, and Society
EDN 201	Instructional Program Development I
EDN 202	Instructional Program Development II
EDN 250	Reading Foundations (K-9)
EDN 322	
or 323	Teaching of Mathematics (K-4) or Teaching of Mathematics (4-9)
PSY 216	Educational Psychology
PSY 220	Child Psychology

Requirements for a concentration in Special Education for the B.A. Degree:

EDN 260	Introduction to Exceptional Children
EDN 364	Mental Retardation in School and Society
EDN 366	Learning Disabled Children and Adolescents
EDN 367	Behavior Management Techniques
EDN 368	Diagnostic Techniques in Special Education
EDN 369	Prescription Development in Special Education
EDN 408	Instructional Methods
EDN 409	Practicum
ENG 301	Scientific Writing
PED 415	Adapted Physical Education
PSY 322	Psychology of Exceptional Children

Content Specialization

Twelve semester hours, in addition to courses used to fulfill Basic Studies and Professional Core requirements, in one of the following areas:

Art	Psychology
Music	Recreation
Elementary Education	Sociology
Physical Education	

A grade of "C" or better is required oin all courses in the Professional Core and Special Education Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

Teacher Certification Program in Secondary and Special Subjects

Programs leading to teacher certification are offered in the secondary (9-12) fields of Biology, Chemistry, Geology, English, French, History, Mathematics, Physics, and Spanish, and in the special subject (K-12) field of Physical Education. Also, students who concentrate in History, Political Science or Sociology may fulfill subject matter requirements for Social Studies certification by completing a minimum of 21 semester hours in three Social Studies areas other than the discipline of major concentration.

Students who concentrate in Biology, Chemistry, Earth Science or Physics may fulfill requirements for Science certification by completing 21-23 semester hours in three science areas other than the discipline of major concentration. Students wishing to prepare themselves as secondary teachers are required to fulfill degree requirements in an appropriate academic discipline and to complete the following sequence of professional courses:

PSY 216	Educational Psychology
PSY 221	Adolescent Psychology
EDN 200	Teacher, School, and Society
EDN 201	Instructional Program Development I
EDN 356	Reading in the Secondary School
EDN 408	Instructional Methods
EDN 409	Practicum

Students must take all the professional courses listed above except EDN 408 and 409 and earn a grade of "C" or better before the student teaching semester. Students seeking secondary teacher certification must be formally admitted to the Teacher Education Program. Standards for admission are:

(1) Completion of the University requirements in English and Mathematics and a natural science laboratory course with a grade of "C" or better in each course.
(2) Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.
(3) Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).
(4) Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

Education Course Descriptions

EDN 200. Teacher, School, and Society (4) Introduction to profession of teaching that acquaints prospective teachers with diverse roles of teachers. Focuses on teacher as decision-maker; careers in education; social, historical and philosophical foundations of education; governmental and organizational aspects of schools; and current and future trends in American education. Observation skills are developed through field experience. Three hours of small group instruction, one hour of large group instruction, and a minimum of one hour of off-campus observation each week.

EDN 201. Instructional Program Development I (3) Prerequisite: Education 200 or permission of department chairman. The first of a two-part sequence designed to provide the conceptual tools and analytic skills necessary to plan, implement, and evaluate instructional programs. This course will focus on the fundamental components of instructional development for teachers. Topics of study include instructional theory, types of learning, instructional objectives, planning strategies, task analysis, organization for instruction, and design of instructional systems. Three hours each week.

EDN 202. Instructional Program Development II (3) Prerequisite: Education 201. The second of a two-part sequence in instructional design, this course will develop further the specific skills in instructional development, critical analysis, and communication. Topics of study include selection and evaluation of instructional resources, design of feedback systems, measurement, and data organization and interpretation. Three hours each week.

EDN 250. Reading Foundations (K-9) (3) A foundations course for all elementary and special education majors. Emphasis on linguistic and psychological bases of the reading process, stages in the development of reading ability, and sequences of skill acquisition. Students will study models of reading instruction, the role of the classroom teacher of reading, and forces influencing that role. Three hours each week.

EDN 260. Introduction to Exceptional Children (3) Survey of major categories of exceptionalities including giftedness, mental retardation, hearing impairments, visual impairments, learning disabilities, communication disorders, emotional handicaps, and physical handicaps. Includes definitions, characteristics, etiology, psycho-social implications, and educational intervention of each exceptionality. Three hours each week.

EDN 310. School-Community Relations (3) Methods of improving school-community relations. Three hours each week.

EDN 318. The Middle School (3) An overview of the conceptual and historic development of the middle school. Major emphasis on exploring the educational implications of the developmental characteristics of middle grade learners. The multiple roles of the middle grades teacher, special needs of exceptional students, and organizational/management approaches will be stressed. Three hours each week.

EDN 319. Individualizing Instruction (3) Prerequisite: Education 200 or consent of instructor, and Education 201 and Psychology 216 are recommended. This course will focus on strategies for meeting needs of individuals in the regular classroom. Students

will study alternative methods for dealing with pupil differences that have an impact on learning. Characteristics of children with academic, intellectual, social-emotional, physical, cultural and language differences will be examined. Three hours each week.

EDN 322. The Teaching of Mathematics, Grades K-4 (3) Prerequisite: Education 200, 201 and six semester hours of appropriate mathematics. Study of methods and materials for the teaching of mathematics at the kindergarten through third grade level. Logical, psychological, and sociological considerations for the teaching of mathematics. Three hours each week.

EDN 323. The Teaching of Mathematics, Grades 4-9 (3) Prerequisite: Education 200, 201 and six semester hours of appropriate mathematics. Focus on materials and methods for teaching mathematics in grades 4-9. Logical, psychological and sociological considerations of the teaching of mathematics. Examination of curricula appropriate at the intermediate and middle school levels. Three hours each week.

EDN 324. Diagnostic Teaching of Mathematics (3) Understanding psychological and environmental factors that affect learning of school mathematics. Focus on methods and materials appropriate to diagnosis and remediation of mathematics difficulties common at the 6-9 level. Awareness of strategies effective for enhancing self-confidence in mathematics learning. A field based activity is required. Three hours each week.

EDN 334. Social Studies Curriculum and Instruction (K-9) (3) Prerequisite: Education 200, 201, and six hours of social studies content. An overview of curriculum content and various ways of organizing it will be emphasized. The implications of learner developmental characteristics for selecting approaches to instruction in social studies will be explored. Topic selections and sequencing of curriculum will be examined as will the connections between social studies and the social sciences. The course will examine the phases of concept learning, generalizations, and factual knowledge in social studies curriculum. Three hours each week.

EDN 335. Social Studies Education in the Middle Grades (3) Examines the specific ways in which social studies curriculum can be organized to meet the learning needs of middle grades students. Instructional strategies which emphasize probelm solving, values investigation, identify bias and interpretation, and the relevance of social inquiry to the real world will be stressed. Three hours each week.

EDN 336. The Teaching of Science (K-9) (3) Prerequisite: Education 201, Physics 305, and four semester hours of natural science. Designed for Elementary Education majors seeking certification at the K-9 level. Methods of teaching the biological and physical sciences. Applications of the sciences to classroom experimentation and investigation. Examination of contemporary curricula used at the elementary and middle school level. Three hours each week.

EDN 337. Inquiry–The Method of Science. Prerequisite: A course in science methods or the completion of 15 hours toward a concentration or major in science or permission of instructor. Assumes initial level competency in curriculum and methods of science. Focuses on conceptualization of and rationale for using inquiry method of teaching science. Provides opportunities to acquire and practice skills needed to utilize method and to guide scientific investigation at K-12 levels.

EDN 344. Books and Materials for Early Childhood Education (3) The selection and evaluation of books written for children. Appraisal of illustrations and other instructional media for preschool and primary children, their functions and correlation with the early childhood curriculum will be studied. Three hours each week.

EDN 348. The Communication Arts: Reading/Language Arts (K-4) (3) Prerequisite: Education 250. An understanding and appreciation of children's language capabilities at school entrance and patterns of language growth through early school years will be developed. Various approaches to school language instruction will be examined. Students will learn strategies and methods for promoting growth in speaking, listening and writing in primary classrooms. Building on the reading foundations course, students will learn how to teach children and how to integrate reading and language experience. They will have extensive opportunities to assess, teach, and evaluate all areas of children's language and reading development in actual public school classroom. Three hours each week.

EDN 351. Language Arts Methods for the Middle School (4-9) (3) Prerequisite: Education 250. The status and process of reading/language growth of middle grade children will be studied. Building on the reading foundations course, students will learn how to extend basic reading skills and more specialized content reading skills. They will learn how to foster development of speaking, listening and writing skills as well as children's understanding of the structure and conventions of their language. Students will teach a variety of supervised lessons using an integrated reading/language arts approach as well as individualized instruction model. Three hours each week.

EDN 355. Developing Reading Competence in the Middle School (3) Prerequisite: Education 202, and Psychology 221 or Education 318. Required course for middle school certification. Presents background and methodology for fostering and evaluating reading abilities of intermediate and middle school level students, both in language arts classes and in other subjects. Topics include comprehension and study skills needed for reading to learn in all areas of the curriculum, organizational and managerial strategies for reading instruction in grades 4-9, and techniques for motivating reluctant readers. Field experiences required. Three hours each week.

EDN 356. Reading in the Secondary School (3) Prerequisite: Education 200 and 201. Required course in the teaching of reading for secondary majors. Basic instructional reading strategies are developed, with emphasis on introducing assignments, improving study skills, and fostering critical thinking. Students identify and learn to teach reading skills specific to varying content areas. Adjusting instruction to students' reading capabilities is stressed. Three hours each week.

EDN 364. Mental Retardation in School and Society (3) Examination of field of mental retardation from an educational perspective. Study of etiology, definitions, characteristics, and historical and current approaches to the education of the mentally retarded. Includes study of all levels of severity of mental retardation. Three hours each week.

EDN 366. Learning Disabled Children and Adolescents (3) Examination of the field of learning disabilities. Emphasis on the concept of learning disabilities, etiology, diagnosis, characteristics, teaching strategies, theory, historical influences, and current trends. Three hours each week.

EDN 367. Behavior Management Techniques (3) Prerequisite: Education 200 or 201 or consent of instructor. Designed to develop an understanding of the principles of behavior and their application in planning and implementing various behavior management strategies. Focus will be on observation and measurement of social behavior management techniques in the special education and regular education classroom.

EDN 368. Diagnostic Techniques in Special Education (3) Prerequisite: Education 201 and one of the following: Education 260, 364, or 366. Examination of concept and fundamentals of educational assessment. Includes examination of formal and informal diagnostic techniques appropriate for mildly handicapped children. Includes assessment of intellectual functioning, reading, mathematics, written expressions, spoken language, perception, and social-emotional skills. Three hours each week.

EDN 369. Prescription Development in Special Education (3) Prerequisite: Education 201 and 368. Development of skill in planning educational programs for exceptional children. Includes writing instructional objectives, selecting appropriate materials and techniques, writing lesson plans, and formulating individual educational programs. Three hours each week.

EDN 370. Behaviorally Disordered Children and Youth (3) Prerequisite: Education 200 and 201 or consent of the instructor. Designed to examine the wide and complex variety of learners labeled as "behaviorally disordered" or "emotionally disturbed". Topics related to historical, theoretical, etiological, developmental, and symptomological issues plus diagnosis, identification and major teaching strategies will be introduced. Program and parent involvement models and current trends and issues will be reviewed. Three hours each week.

EDN 404. Basic Philosophies of Education (3) Philosophies of education and their influence on the curriculum. Three hours each week.

EDN 407. Teaching Practices and Techniques (3) Development of techniques of teaching: successful practices in teaching. Three hours each week.

EDN 408. Instructional Methods (6) Corequisite: Education 409, Prerequisite: Education 200, 201, (or departmentally approved equivalents) and 250 or 356 as appropriate; Psychology 220 or 221 as appropriate and permission of the School of Education. Intensive examination of instructional methods in the student's area of specialization. Activities will be related to the student's practicum assignment, and emphasis will be placed on the development of instructional plans to be implemented in the practicum setting. Areas of specialization: English; French; Mathematics; Physical Education; Science; Social Studies; Spanish; Special Education.

EDN 409. Practicum (9) Corequisite: Education 408. Prerequisite: As specified for Education 408. Students will be assigned full-time to practicum sites within their areas of specializations. During the course, students will engage in a variety of supervised instructional activities, assuming increasingly wider responsibility for class instruction. Practica are offered in the areas of specialization listed above under Education 408.

EDN 410. Seminar in Education (K-4; 4-6; 6-9) Corequisite: Education 411. Prerequisite: All courses in the professional core and those professional courses appropriate for the concentration for K-9 majors. Designed as a culmination of professional study and an initiation into student teaching and the teaching profession. Provides opportunities to extend and apply understandings of the roles of the teacher as a decision-maker, particularly in the areas of planning, instruction, management, and evaluation.

EDN 411. Practicum (K-4; 4-6; 6-9) Corequisite: Education 410. Prerequisite: As specified for Education 410. A full time practicum experience within the area of specialization. Students will engage in a variety of supervised instructional activities, assuming an increasing amount of responsibility for all phases of classroom instruction. Practica are offered in the areas of primary education (K-4), intermediate education (4-6), and middle school education (6-9).

EDN 415. Educational Media Design and Production (3) This course will provide students with an understanding of the design principles underlying the production of instructional materials and with the necessary production techniques. Emphasis will be placed upon the production of materials and their effective integration into an instructional unit. Students will design, produce, and evaluate a number of projects using techniques common to media programs in public schools and the authors who have made contributions to this field. Three hours each week.

EDN 430. Preschool Curriculum (3) Prerequisite: Education 201. Provides students the understandings, skills and abilities necessary to implement an effective preschool program. Emphasis placed on knowledge of the curriculum contents and the effective combinations and correlations of these contents for a preschool program. Activities will include lectures, discussions, demonstration, individual, and group projects.

EDN 431. Teaching in the Primary Grades (3) Designed to develop a broad overall view of teaching in the primary grades. The course will include examination of the history, current "state of the art" and possible future of primary education. Focus will be on the application of knowledge of child development and learning theories in organizing and implementing the primary school curriculum in an integrated and interdisciplinary fashion. Study of classroom organization and management for effective teaching in the primary grades will be undertaken. Three hours each week.

EDN 432. Interdisciplinary Curriculum and Instruction (3) Examines principles of interdisciplinary curriculum and instruction and explores its appropriateness for middle grades and intermediate students. Alternative approaches to designing interdisciplinary curriculum and instruction such as thematic units and exploratory and interest-based study will be examined. Emphasizes the possible linkages among the disciplines, focusing on thinking and communication skills, concept and problem solving learning, as well as values clarification/resolution. Three hours each week.

EDN 446. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of materials published for classroom use in the public schools and the authors who have made contributions to the field. Three hours each week.

EDN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

EDN 495. Selected Topics in Education (1-3) Prerequisite: Junior or senior standing. Selected topics in education of varying duration and credit. May be repeated for a maximum of 6 semester hours.

EDN 499. Honors Work in Education (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 71.

SCHOOL OF NURSING

Marlene M. Rosenkoetter, *Acting Dean*

Bachelor of Science Degree

Ms. Gilliland, Dr. Gray, Ms. Kemppainen, Ms. Majette, Ms. Payne, Ms. Stone.

The School of Nursing at The University of North Carolina at Wilmington offers a program leading to the Bachelor of Science degree with a concentration in professional nursing. The purpose of this baccalaureate program is to prepare a generalist who possesses the knowledge, skills, and attitudes with which to practice family-centered professional nursing in a variety of current and emerging health care delivery systems. In addition, the program is designed to provide a foundation for graduate nursing education. Through interactions with clients – individual persons, families and communities – and other health care professionals, nursing graduates will contribute toward meeting the wide-ranging needs of the region, state, and the larger community.

Program Objectives

The graduate of The University of North Carolina at Wilmington baccalaureate program in nursing is able to:

(1) Practice family-centered professional nursing based upon a conceptual framework in a variety of settings.

(2) Interact with individuals, families, and communities to promote an environment conducive to health.

(3) Utilize the nursing process in the delivery of health care to individuals, families, and communities.

(4) Base professional practice upon a synthesis of knowledge from social, behavioral, and natural sciences, nursing theory and research.

(5) Demonstrate commitment and accountability to health care consumers and to professional standards.

(6) Function as a self-directed learner who assumes responsibility for continued personal and professional growth.

(7) Assume a leadership role in the provision and coordination of health care through collaborative relationships with other health care professionals.

(8) Influence present and emerging roles of nursing practice to meet the health needs of a changing society.

(9) Stimulate change within clients and health care delivery systems to more effectively promote the health of the community.

Degree Requirements for Bacheolor of Science Degree

Concentration in Nursing

SAMPLE SCHEDULE

FIRST YEAR

Fall Semester

			Hours
ENG	101	English Composition	3
PED	101	Found. of Physical Activity	2
PSY	105	General Psychology	3
MAT	111	Precalculus Mathematics	3
CHM	115	Fund. of General Chemistry	4
TOTAL			15

Spring Semester

			Hours
ENG	102	English Composition	3
SOC	105	Intro. to Sociology	3
CHM	215	Organic/Biologic Chemistry	4
Humanities Elective			6
TOTAL			16

SECOND YEAR

Fall Semester

			Hours
BIO	240	Human Anatomy & Physiology	4
PSY	323	Lifespan Human Development	3
Creative Arts Elective			3
Humanities Elective			3
Free Elective			3
TOTAL			16

Spring Semester

			Hours
BIO	241	Human Anatomy & Psysiology	4
BIO	246	Microbiology of Human Diseases	4
SOC	345	Sociology of the Family	3
+NSG	115	Intro. to Contemporary Nursing*	1
Humanities or Creative Arts Elective**			3
TOTAL			15

Summer Session I

			Hours
NSG	200	Intro. to Nursing Assess/ Int. I	2
NSG	200-51	Intro. to Nursing Assess/ Int. I Laboratory	1
TOTAL			3

Summer Session II

			Hours
NSG	250	Intro. to Nursing Assess/ Int. II	2
NSG	250-51	Intro. to Nursing Assess/ Int. II Laboratory	1
TOTAL			3

* Can be taken concurrently with NSG 200 (transfer students)

** 12 hours Humanities and 3 hours Creative Arts, or 9 hours Humanities and 6 hours Creative Arts.

\+ **A minimum grade of "C" is required in each nursing course.**

Degree Requirements for Bachelor of Science Degree

Concentration in Nursing

SAMPLE SCHEDULE

THIRD YEAR

Fall Semester	Hours	Spring Semester	Hours
NSG 300 Nursing Process I	5	NSG 350 Nursing Process II	5
NSG 300-51 Nursing Process I Laboratory	3	NSG 350-51 Nursing Process II Laboratory	3
NSG 310 Interactions in Nursing Prac. I	3	NSG 360 Interactions in Nursing Prac. II	3
NSG 315 Nature of Man & Health in Modern Society	3	STT 210 Intro. to Statistics with Application in Health Sciences	3
Free Elective (or senior year)	(3)		
TOTAL	14-17	TOTAL	14

FOURTH YEAR

Fall Semester	Hours	Spring Semester	Hours
NSG 400 Nursing Process III	4	NSG 450 Nursing Process IV	5
NSG 400-51 Nursing Process III Laboratory	3	NSG 450-51 Nursing Process IV Laboratory	3
NSG 410 Interactions in Nursing Practice III	3	NSG 460 Interactions in Nursing Practice IV	3
NSG 415 Research in Nursing	3	NSG 490 Advanced Nursing Practicum	1
		Free Elective (or junior year)	(3)
TOTAL	13	TOTAL	12-15

TOTAL HOURS: 57 hours - Concentration in Nursing (46%)

67 hours - Basic Studies and Collateral (54%)

Admission to the School of Nursing is dependent on University admission, approval of the Admissions Committee of the School of Nursing, and meeting admission criteria, including the completion of required prerequisite courses.

Time Limits: Nursing courses must be completed within a consecutive six calendar year period of time.

Ten-Year Rule: Non-nursing courses which are more than ten years old will be evaluated by the School of Nursing faculty for currency and credit.

Registered nurses are encouraged to contact the School of Nursing for further information on the program for RN's.

BACHELOR OF SCIENCE DEGREE

Course Descriptions

NSG 115. Introduction to Contemporary Nursing (1) Prerequisite: Sophomore status. Open to non-nursing majors with consent of instructor. An overview of the historical development of nursing with discussion of significant persons, issues and events. Nursing education alternatives, various roles of professional nurses in contemporary practice, basic legal ethical issues, and criteria which differentiate professional practice are described. Introduces the conceptual framework on the UNCW baccalaureate Nursing program. One hour each week.

NSG 200. Introduction to Nursing Assessment and Intervention I (2) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200-51. An introduction to concepts and techniques of professional nursing practice. Includes concepts of nursing process, role, health, illness, communication, self-awareness, growth and development, responsibility and accountability, change, needs, client teaching, leadership, prevention, and nursing research. Selected basic nursing techniques associated with these concepts are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer school).

NSG 200-51. Introduction to Nursing Assessment and Intervention I Laboratory (1) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200. Provides the opportunity for clinical application of the introductory concepts and techniques of professional nursing practices which are taught in Nursing 200. Students apply these concepts with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer school).

NSG 250. Introduction to Nursing Assessment and Interventions II (2) Prerequisite: Nursing 200, 200-51. Corequisite: Nursing 250-51. An introduction to the concepts and techniques of health assessment including interviewing and history-taking, developmental assessment, psychosocial assessment, and physical assessment. Nursing process provides the major framework for focusing on assessment of individual adults and identifying opportunities for primary prevention. Assessment techniques are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer school).

NSG 250-51. Introduction to Nursing Assessment and Interventions II Laboratory (1) Prerequisite: Nursing 200, 200-51. Corequisite: Nursing 250. Provides the opportunity for clinical application of introductory concepts and techniques of health assessment which are taught in Nursing 250. Assessments are performed with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer school).

NSG 300. Nursing Process I (5) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300-51. Focuses on utilization of the nursing process with families, incorporating communication patterns, family development and the professional nurse's role in primary prevention with families. Basic research findings are incorporated and additional nursing techniques are acquired. Beginning concepts of secondary prevention are introduced. Five hours each week.

NSG 300-51. Nursing Process I Laboratory (3) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300. Provides the opportunity for clinical application of the concepts and techniques which are taught in Nursing 300. The nursing process is utilized with families in all phases of the life cycle, focusing on primary prevention. Selected secondary prevention related to screening in healthy populations is implemented. Twelve hours clinical laboratory each week.

NSG 310. Interactions in Nursing Practice I (3) Prerequisite: Nursing 250, 250-51. Prerequisite or Corequisite: Nursing 300, 300-51. Emphasizes elements of the teaching-learning process and related principles of change, decision-making, communication and assertiveness. Selected literature is reviewed, as a teaching project is implemented with a designated family. Three hours each week.

NSG 315. Nature of Man and Health in Modern Society (3) Prerequisite: Nursing 115, 250, 250-51. Establishes a foundation for the professional nursing role through an examination of selected historical events, legal and ethical frameworks for practice, standards for nursing, key issues in health care, current issues in nursing, nursing theories, and models of nursing care delivery. Three hours each week.

NSG 350. Nursing Process II (5) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350-51. Focuses on utilization of the nursing process with families who have a member in an acute care setting. A foundation is developed for secondary prevention, including pathophysiology, psychopathology, relevant theories and research, and nursing roles and functions. Additional nursing techniques needed for secondary prevention are required. Five hours each week.

NSG 350-51. Nursing Process II Laboratory (3) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350. Provides the opportunity for clinical application of the concepts and techniques taught in Nursing 350. The nursing process is utilized with families who have a member in an acute care setting, focusing on secondary prevention. Twelve hours clinical laboratory each week.

NSG 360. Interactions in Nursing Practice II (3) Prerequisite: Nursing 310, 315. Corequisite: Nursing 350, 350-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership, and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. Teaching-learning principles are applied with a group of clients. Three hours each week.

NSG 400. Nursing Process III (4) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400-51. Focuses on utilization of the nursing process with families who have a member in a critical care setting and development of a framework for more advanced secondary prevention. Beginning concepts of tertiary prevention are introduced and additional nursing techniques pertaining to advanced secondary prevention are acquired. Four hours each week.

NSG 400-51. Nursing Process III Laboratory (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400. Provides the opportunity for clinical application of the advanced secondary prevention concepts and techniques which are taught in Nursing 400. The nursing process is utilized with families who have a member experiencing a life-threatening illness or crisis. Twelve hours clinical laboratory each week.

NSG 410. Interactions in Nursing Practice III (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400, 400-51. Emphasizes elements of community assessment and related principles of epidemiology, health planning, social and political change, environmental management, and levels of prevention. Community resources and data sources are incorporated into the implementation of an assessment for a selected community. Three hours each week.

NSG 415. Research in Nursing (3) Prerequisite: Statistics 210, Nursing 350, 350-51, 360. Examines elements of the research process as applied to nursing. Research terminology, methodology, statistical approaches, computer applications, and ethical decisions are incorporated. Principles of research are implemented in developing a preliminary proposal for a nursing research project. Three hours each week.

NSG 450. Nursing Process IV (5) Prerequisite: Nursing 400, 400-51, 410. Corequisite: Nursing 450-51, 460. Focuses on the utilization of the nursing process with individuals, families, and groups who have complex health needs. A conceptual framework for clinical practice based on related beliefs, theories, and research is developed, and provides the foundation for the role of the nurse in tertiary prevention. Five hours each week.

NSG 450-51. Nursing Process IV Laboratory (3) Prerequisite: Nursing 400, 400-51, 410. Corequisite: Nursing 450, 460. Provides the opportunity for the clinical application of concepts and techniques taught in Nursing 450 and Nursing 460. The nursing process is utilized with individuals, families, and groups who have complex health needs, and the student assumes responsibility for coordinating or directing the care of a group of clients. Twelve hours clinical laboratory each week.

NSG 460. Interaction in Nursing Practice IV (3) Prerequisite: Nursing 400, 400-51, 410. Corequisite: Nursing 450, 450-51. A seminar focusing on nursing leadership and management for the professional nurse. Included are: related concepts and theories of organization, change, power and authority, and role development; models of nursing care delivery; legal ramifications of delegation; models of quality assurance; computer applications in nursing; and transitional issues for the graduate. Three hours each week.

NSG 490. Advanced Nursing Practicum (1) Prerequisite: Nursing 400, 400-51, 410, 415. Provides the opportunity for clinical application of the nursing process to a selected area of nursing practice as the student integrates the concepts of research, prevention, and change into a clinical project. Emphasis on further development of nursing skills, knowledge and leadership, and establishing collegial relationships. Four hours clinical practicum each week.

NSG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing; consent of instructor; Nursing 300 and Nursing 300-51.

NSG 499. Honors Work in Nursing (2-3) Prerequisite: Eligibility for honors program; Nursing 300 and Nursing 300-51. Individual study for honors students.

Associate Degree in Nursing Program

Ms. Lowe, Ms. Otto, Ms. Pittman

The last class was admitted to the associate degree in nursing program for Fall, 1984. No further applications are being accepted.

Requirements for a concentration in Nursing for the A.A. degree: Nursing 110, 120, 135, 220, 225, 250; English 101, 102; Psychology, either 105 or 145, 220; Sociology 105; Biology 215, 225; Chemistry 107; 3 hours to be chosen from the Humanities or Creative Arts.

To progress in the nursing program, a student must have at least a "C" in nursing courses and a Satisfactory in clinical courses. A student who makes a "D" or less in a nursing course, or an Unsatisfactory in a clinical course, will be withdrawn from the program.

ASSOCIATE DEGREE IN NURSING

Course Descriptions

NUR 220. Nursing Intervention III (9) Prerequisite: Nursing 120. Focus on planning and implementing nursing intervention for individuals presenting complex physical and psychological needs. Five lecture and twelve laboratory hours each week.

NUR 225. Nursing Intervention IV (9) Prerequisite: Nursing 220. Focus on planning and implementing nursing intervention to meet the needs of patients in the maternity, child, family cycle. Emphasis is on the family unit in the community setting as well as during hospitalization. Five lecture and twelve laboratory hours each week.

NUR 250. Nursing Seminar (3) Prerequisite: Nursing 220. Provides students an opportunity for exploration of nursing in today's society with a focus on current trends and issues. Three hours each week.

PROFESSIONAL PROGRAMS

MEDICAL TECHNOLOGY

Advisor: Mrs. Kendrick

UNCW students interested in Medical Technology have two programs of study from which to choose.

1. A five-year program which includes earning a Bachelor's degree with a major in either Biology or Chemistry and completion of an additional year of training at an accredited hospital.

*2. A four-year program leading to a Bachelor of Science degree with a concentration in Medical Technology. The first six semesters (90 semester hours) of this program are completed on campus with the final year (12 months) spent in training at an affiliated hospital. The affiliated hospitals are:

   Charlotte Memorial Hospital, Charlotte, N.C.
   Forsyth Memorial Hospital, Winston-Salem, N.C.
   Mercy Hospital, Charlotte, N.C.
   New Hanover Memorial Hospital, Wilmington, N.C.

   Upon successful completion of this four-year program, the student will receive the Bachelor of Science degree with a concentration in Medical Technology.

Completion of the first years of study at UNCW does not assure the student admission to the year of clinical training at a hospital. There is competition for the limited space available; therefore, application to the preferred hospital should be made early in the fall of the last year at UNCW. Such application is the responsibility of the student. Guidance by the faculty advisor should be sought, since entrance requirements may differ at various hospitals.

As a part of the admission process, some hospital facilities require that applicants take the Allied Health Professions Test. This test is given at specified institutions each year. See the advisor about time and place.

*Students majoring in Medical Technology must file and pay for graduation during the first semester of the junior year. This application is filed in the office of the Registrar.

The curriculum prescribed during the first three years at UNCW includes the following:

1. Basic Studies requirements – 45 semester hours.
2. Requirements for a concentration in Medical Technology for the BSMT degree:

BIO 108 Introduction to Medical Technology (1)
BIO 205 Introductory Biology: Plants (4)
BIO 206 Introductory Biology: Animals (4)
BIO 207 Introductory Biology: Cells (3)
BIO 208 Methods of Biological Research (3)
BIO 341 Clinical Calculations (1)
BIO 345 Animal Physiology (4) *or* BIO 347 Cell Physiology (4)
BIO 371 Human Fungal Diseases (1) *or* BIO 377 Mycology
BIO 425 Microbiology (4)
BIO 441 Introduction to Immunology (1)
CHM 101-102 General Chemistry (4-4)
CHM 311-312 Organic Chemistry (4-4)
MAT 111 Precalculus Mathematics (3) *or* MAT 115 Elementary Mathematical Analysis

Recommended elective courses:

BIO 235 Genetics in Human Affairs (3)
BIO 335 Genetics (4)
BIO 465 Biochemistry (3)
BIO 495 Seminar (in related areas) (1)
CHM 325 Physical Chemistry (4)
*CHM 335 Quantitative Analysis (4)
PHY 101-102 Elementary College Physics (4-4)
STT 215 Introduction to Statistics (3)
Computer Science Courses

*Very highly recommended

Choice of elective course should be made jointly by the student and the Medical Technology advisor.

The following Medical Technology clinical facilities teach the listed courses during the last 12 months of the student's training. Credit for these courses may not be counted toward any other degree at The University of North Carolina at Wilmington.

CHARLOTTE MEMORIAL HOSPITAL

MT 402. Serology & Immunology (3) Develops an understanding of antibody production, antigen-antibody reactions, and serological techniques such as agglutination, immunodiffusion, and fluorescent antibody procedures. This course involves a study of the various immune response manifestations in the serological diagnosis of the clinical disease.

MT 403. Blood Bank (4) The course includes typing of blood and identification of factors responsible for incompatibilities between patient and donor and between maternal and fetal blood. Donor processing as well as the theoretical and practical aspects of component therapy are included.

MT 405. Hematology (8) The course encompasses the study of the blood forming organs of the body. Urinalysis, hemoglobin electrophoresis, sickle cell studies, routine blood counts and evaluation, bone marrow studies as well as diagnostic coagulation studies are included. Theoretical and practical performance are emphasized.

MT 412. Microbiology (9) A review of basic microbiology, including microbial physiology and genetics, host-parasite relationships, and the effects of physical, chemical and antimicrobial agents upon microorganisms. This is followed by systematic medical microbiology with emphasis upon collection and processing of clinical specimens for the isolation and identification of microorganisms involved in infectious disease processes.

MT 420. Clinical Chemistry (10) This course involves the biochemical analysis of the blood, urine, spinal fluid, and other body fluids. Instrumentation, maintenance, and multiphasic screening are included to evaluate the enzymes, hormones, electrolytes, drugs, and other important blood component levels. Quality control and normal population values as well as other statistical aspects are studied.

FORSYTH MEMORIAL HOSPITAL

MT 406. Serology-Blood Bank (6) Cellular and humoral immune response and the primary and secondary diseases which affect these systems. Diagnostic and implications of bacterial, fungal, and viral antibodies. Antigens and antibodies of red blood cells, white blood cells, and other tissue sites; collection, processing, and storage of blood and blood products for transfusion purposes.

MT 412. Microbiology (9) Morphology and physiologic activities of medically important bacteria, fungi, and parasites. Microorganisms in the etiology of disease, interaction of host and invader, epidemiology of nosocomial infections, and mechanisms of antimicrobial therapeutic agents.

MT 416. Hematology and Clinical Microscopy (9) Human blood cell morphology; primary and secondary hematologic diseases and clinical and laboratory techniques for diagnosing disorders of red blood cells, white blood cells, platelets, and hemostatic mechanisms. Physiologic alteration and laboratory findings related to urine, cerebrospinal fluid, joint fluids, and other body fluids.

MT 424. Biochemistry (10) The biochemistry of disease with emphasis on diagnostic tests, pitfalls in diagnostic biochemistry and the influence of multiple variables, principles and maintenance of major types of advanced laboratory instrumentation, statistical methods as applied to normal and abnormal populations and the individual patient.

MERCY HOSPITAL
SCHOOL OF MEDICAL TECHNOLOGY

MT 401. Serology (2) Serological and Immunological studies of body fluids.

MT 403. Blood Banking (4) Typing patients and donors, selecting compatible blood for transfusions.

MT 405. Hematology (8) The study of the cellular components of blood and other body fluids by quantitative, qualitative and microscopic methods. Coagulation studies.

MT 412. Microbiology (8) Clinical aspects of Bacteriology, Parasitology, Virology and Mycology.

MT 414. Clinical Microscopy (4) Urinalysis, gastric analysis, pregnancy testing, kidney stone analysis.

MT 424. Biochemistry (8) The chemical analysis of body fluids for various electrolytes, enzymes, proteins, lipids, hormones, carbohydrates, gases, and drugs.

NEW HANOVER MEMORIAL HOSPITAL

MT 402. Immunology-Serology (2) A study of various immune response mechanisms in the body and the laboratory techniques for evaluating these responses.

MT 405. Hematology and Coagulation (8) The nature of the blood and bone marrow in health and disease, blood cell morphology, routine and special testing. Hemostasis, disorders of the clotting mechanism.

MT 407. Immunohematology (5) A study of the clinical transfusion service including collection and handling of donor blood and its components, emphasis on pre- and post-transfusion testing and the nature and action of important antibodies.

MT 412. Microbiology (8) Medical important bacteria, fungi, parasites and associated diseases with special attention to their cultivation, identification and susceptibility to antibiotic agents.

MT 414. Clinical Microscopy (2) Chemical and microscopic findings in the urine in health and disease, microscopic analysis of urinary sediment; renal physiology and chemistry.

MT 420. Clinical Chemistry (8) Instruction on the measurement of medically significant chemical parameters of the blood and other body fluids. Use and maintenance of sophisticated instrumentation, quality control, and the significance of test results in disease.

MT 430. Management and Education Principles (1) Supervision and laboratory management. Clinical teaching techniques.

NURSING

Advisors: Ms. Payne, Ms. Kemppainen, Dr. Gray (Registered Nurses only)

The University provides a four-year program leading to a Bachelor of Science degree in Nursing. Applications are no longer being accepted for the associate degree program in Nursing. The last class was admitted Fall 1984 and will graduate in 1986. Upon successful completion of either program and the recommendation of the faculty, graduates are eligible to write the licensure examination for registered nurses.

For further information on the Nursing program, refer to the section of this catalog which describes School of Nursing programs, requirements, and course offerings.

THE TEACHER EDUCATION PROGRAM

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have completed 45 semester hours of college credit, have a minimum grade point average of 2.0, have completed the University basic skills requirements in English and Mathematics and a Natural Science laboratory course with a grade of at least "C" in each course, have completed EDN 200, Teacher, School and Society, with a grade of "C" or better, and have passing scores on the basic studies test specified and mandated by the Board of Education of the State of North Carolina.

The University provides degree certification programs for elementary, middle school, secondary, and special education teachers. For further information, refer to the section of this catalog which describes School of Education programs, requirements, and course offerings.

PRE-PROFESSIONAL PROGRAMS

PRE-AGRICULTURE AND PRE-FORESTRY

Pre-Agriculture Advisor: Dr. Merritt
Pre-Forestry Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students to transfer to schools offering professional training in the two fields. The programs are designed to meet the requirements and recommendations of the professional schools and students should plan their programs in consultation with the pre-agriculture or pre-forestry advisor.

PRE-ENGINEERING

Advisors: In General College Advising Center

The University offers courses in pre-engineering for students who may transfer to a specialized engineering school after one or two years.

General Requirements: Mathematics 211 (students with insufficient background may begin with MAT 115 or even MAT 111), 212, 213, 315; Chemistry 101, 102; Computer Science 121; Engineering 111; Physics 201, 202; English 101, 102, and one literature course; Economics 251 or 105; one History course;

Physical Education 101 (PED 102 is not required for graduation; however, four semesters of PE are required to graduate from N.C. State University); and one elective (Civil Engineering students should consider Geography 320).

Specific Requirements:
Chemical Engineering: Chemistry 311, 312
Civil Engineering: Geology 101; Engineering 211, 212
Electrical Engineering: See advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major in any discipline that fulfills the requirements for a baccalaureate degree at UNCW. In developing a Pre-Law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words; (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities, the association recommends a pre-legal education of "the broadest scope." To accomplish these goals The University of North Carolina at Wilmington offers a wide range of Pre-Law courses. Although Political Science and Business are frequently selected by Pre-Law students as their major, Economics, History, Sociology and others are sometimes selected. Regardless of the area of concentration, the Pre-Law student should be zealous in the selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the Pre-Law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is desirable and highly recommended.

Finally, the Pre-Law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectual discipline. "The best trained applicant for law school," states the Association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school should apply in time to insure that their completed file is available by January 1 of the year they plan to enter. This means that they should register for either the June or October administration of the Law School Admissions Test and for the Law School Data Assembly Service. The LSAT and the LSDAS are explained fully in the Law School Admission Bulletin which is available in the Department of Political Science. Additional information and advice may be secured from the Pre-Law advisor in the Department of Political Science.

PRE-MEDICINE, PRE-DENTISTRY, AND PRE-OPTOMETRY

Advisors: Drs. Ned H. Martin and Yousry Sayed

The University of North Carolina at Wilmington offers an excellent opportunity to students desiring preprofessional training in dentistry, medicine, or optometry. Although specific requirements may vary among various schools, all emphasize core courses in biology, chemistry, mathematics, and physics. These courses could be incorporated in almost any major, and students should give consideration to a major which they find interesting and in which they feel confident. Students majoring in the natural sciences should have a broad background in the humanities and social sciences areas. Most medical and dental schools recommend that students receive a bachelor's degree (B.A. or B.S.) before admission. While planning their curriculum, students should keep in mind the graduation requirements which include a total of 124 credit hours, the basic studies requirements, and the requirements of their chosen area of concentration. Pre-medicine, pre-dentistry, and pre-optometry are *not* majors; however, there is a B.A. degree in Chemistry with an emphasis in the pre-medical sciences.

In addition to the required core courses, almost all medical schools require taking the Medical College Admission Test (MCAT), dental schools require taking the Dental Admission Test (DAT), and optometry schools require taking the Optometry College Admission Test (OCAT) prior to consideration for admission. Scores on these tests constitute an important part of the admission criteria. Students usually take these tests during their junior or early senior year.

High academic achievements should be coupled with extracurricular activities as most professional schools prefer students who are well-rounded.

Required Courses

The following courses fulfill the *minimum* requirements of a large number of medical and dental schools.

General Chemistry (CHM 101-102 with labs)
Organic Chemistry (CHM 311-312 with labs)
Quantitative Analysis (CHM 335 with lab)
Animal Biology (BIO 206)
Cell Biology (BIO 207)
Comparative Vertebrate Anatomy (BIO 315)
Physics (PHY 101-102 or 201-202)
Precalculus Mathematics (MAT 111-112 or 115)

Additional Recommended Courses

Calculus (MAT 205-206 or 211-212)
Biochemistry (BIO 465 or CHM 465)
Medicinal Chemistry (CHM 417)
Animal Physiology (BIO 345)
Advanced Organic Chemistry (CHM 415)
Vertebrate Embryology (BIO 316)
Genetics (BIO 335 or 235)
Physical Chemistry (CHM 325 or 321-322)
Cell Physiology (BIO 347)

The pre-medical advisors help students in curricular planning, academic progress, preparation for admission tests, and with application for admission to professional schools. The Premedical Sciences Advisory Committee composes a consensus evaluation of each applicant to medical science profession schools.

PRE-PHARMACY

Advisor: Dr. Ned H. Martin

Students interested in careers in Pharmacy should consult with the Pre-Pharmacy advisor before arranging their academic schedules. Basic coursework in Biology, Chemistry, Physics, and Mathematics is required, as well as additional studies in the Social Sciences and Humanities in the two-year Pre-Pharmacy program. Students should arrange through their advisor to take the Pharmacy College Admission Test (PCAT) in November of their second year. Applications to pharmacy schools should be made in the fall or winter of the second year.

PRE-VETERINARY MEDICINE

Advisor: Dr. Fugler

The student interested in applying to a school of veterinary medicine may complete basic requirements for admission at The University of North Carolina at Wilmington. Specialized courses not offered at this institution must be taken elsewhere. The only school of veterinary medicine in North Carolina is located at North Carolina State University in Raleigh.

Students planning to pursue a career in veterinary medicine should consult with the advisor to plan the program of study.

SPECIAL PROGRAMS

MARINE SCIENCES

Marine Science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the University's main campus as well as specialized research activities associated with its Institute for Marine Biomedical Research at Wrightsville Beach.

The programs in Marine Sciences on the University's main campus consist of a Marine Biology curriculum leading to the B.S. degree, a Marine Biology curriculum leading to the M.S. degree, and a Faculty Marine Science Research Program.

MARINE BIOLOGY CURRICULUM

The UNCW Marine Biology curriculum is a unique baccalaureate program in the University system. It includes a strong foundation of Biology with an emphasis in Marine Biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work in many Marine Biology courses. Approved collateral requirements include marine-oriented courses in Math, Physics, Chemistry and the Earth Sciences. The curriculum is flexible enough to meet the individual needs of the student enabling preparation for graduate studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in Marine Biology are listed under Biology in the Degree Program Requirements section of this catalogue.

MARINE BIOLOGY GRADUATE PROGRAM

The graduate program leading to the Master of Science degree in Marine Biology includes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each of these tracks is designed to provide the necessary latitude to allow the student to develop a program of study appropriate to his needs. Further information is given in the Graduate Studies section.

MARINE SCIENCE RESEARCH PROGRAM

The Marine Science Research Program has many active participants with research interests covering areas of Marine Biology, Physical and Chemical Oceanography, Marine Geology and Marine Biogeography. There are two categories of participants in the program: those who hold research positions and those who hold regular teaching positions but who are also engaged in Marine Science research. All participants are involved in the Marine Science instructional program.

INSTITUTE FOR MARINE BIOMEDICAL RESEARCH

The Institute for Marine Biomedical Research constitutes a major component of the overall Marine Science development effort at UNCW and has the dual mission of conducting research programs of the highest quality and utilizing these programs as an instrument in the education of students. The Institute provides a link between studies of medical sciences and human biology and studies of marine sciences and the marine environment. This role distinguishes it from other institutions dedicated to Marine Biology or to Oceanology, and renders it unique in the State of North Carolina and the entire United States.

The Institute's scientific program focuses on three related areas. Experimental Biology addresses itself to broad problems of adaptation and acclimatization of animal life at all levels of development to the environmental stresses characteristic of the marine environment. Biomedical studies are concerned in particular with the higher vertebrate species that invite comparison with mammals and man in brain and central nervous system function, structure, pharmacology, and studies of regulator processes, such as temperature regulation. The Experimental Oceanology program covers a broad range of efforts related to the ocean environment, using the ocean as a laboratory in which the methods of experimental science can be applied to the solution of problems related to management, conservation, and development of marine life.

Supporting the Institute's research program are a series of specialized facilities, including the complex of deep-sea simulators capable of simulating ocean depths of 30,000 feet, a biochemistry laboratory, histology laboratory, a photographic laboratory, and electronic and machine shops. In addition, the Institute is continuing to sponsor large-scale expeditionary research in such regions as the Atlantic, Caribbean, the South American Andes, and Lake Baikal (the world's deepest lake) in Central Siberia.

ENVIRONMENTAL STUDIES CURRICULUM

The Environmental Studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes students to a broad range of analytical procedures in the natural and social science, while allowing them to develop special capabilities within their primary area of interest.

The curriculum is divided into two parts: a multidisciplinary core consisting of course work in the natural and social sciences, including an environmental impact seminar, and an area of specialization consisting of course work within approved disciplines. Those who wish to emphasize Marine Science may do so by electing an approved sequence of courses in Marine Science. Other available concentrations include: Biology, Chemistry, Earth Sciences, Economics, Management, Mathematics, Physics, Political Science, Psychology, Sociology and Anthropology. Requirements for the B.A. degree in Environmental Studies are listed in the Degree Program Requirements section of this catalogue.

FIELD EXPERIENCE IN BIOLOGY

The Department of Biological Sciences offers a summer field experience in various biological disciplines at selected areas within and outside the continental United States. Participating students may conduct individual or group research, with faculty guidance, on both marine and terrestrial organisms. Research already has been conducted in such places as the Florida Keys, the Bahamas, and parts of Central and South America.

ARMY ROTC

The Army Reserve Officer's Training Corps at The University of North Carolina at Wilmington provides men and women who meet the physical and mental requirements the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Transfer and graduate students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

OFFICE OF SPECIAL PROGRAMS

The Office of Special Programs serves as the coordinator, convener and catalyst for a variety of educational and service-oriented activities throughout Southeastern North Carolina. These activities are categorized as either academic or non-academic in nature and include continuing education, university extension, and summer session programs.

CONTINUING EDUCATION

The University responds to the continuing education needs of the community by developing programs cooperatively with business, industry, educational institutions, service organizations, social service agencies, government agencies, civic groups, and individuals. Participation in these non-academic programs is based upon the appropriateness of the activity in meeting the needs of an individual or group.

PROGRAMS AND SERVICES FOR BUSINESS AND INDUSTRY

The University through the Office of Special Programs offers a variety of short courses, conferences, and workshops designed specifically for business and industry. These activities are conducted either by this University's faculty and staff or by individuals from other universities or organizations. The activities include programs in communication, management, supervision, small business administration, computer programming, and other topics. Activities are either custom designed for a specific business or industry or offered to the entire community as a regularly scheduled event. At the present time, most of these programs are being delivered through the Management Development Program, an organized effort featuring faculty from the Cameron School of Business Administration.

PROGRAMS AND SERVICES TO PUBLIC ORGANIZATIONS

The University is vitally interested in assisting public organizations (municipal, county, state, and federal) with their training and educational programs. A variety of continuing education activities, including credit courses, noncredit short courses, workshops, conferences, and seminars are offered to public organizations.

PROGRAMS AND SERVICES TO THE GENERAL PUBLIC

The Office of Special Programs arranges a full schedule of community interest programs during each academic year to raise the level of awareness of persons concerning issues affecting their daily lives and to contribute to personal enrichment. These activities include speakers, discussion groups, short courses, workshops, and conferences. The topics range from local problems to international affairs. For example the Office of Special Programs

normally coordinates the "Great Decisions" program during February and March of each year. This program, sponsored and developed by the American Foreign Policy Association, is a discussion group activity which includes eight topics of international interest. This is a noncredit activity open to the public.

UNIVERSITY EXTENSION PROGRAM

In an effort to reach beyond the bounds of the campus the University offers, through the Office of Special Programs, a number of freshman and sophomore level courses on the campuses of three regional technical colleges. The institutions involved in this program are James Sprunt Technical College in Kenansville, Bladen Technical College in Dublin, and Sampson Technical College in Clinton, North Carolina.

The technical colleges are responsible for recruiting and enrolling students in this program. Only those students who are high school graduates or the equivalent may be enrolled for academic credit in this Extension Program of the University. All requests for transcripts for University extension courses should be forwarded to the Registrar of The University of North Carolina at Wilmington.

Students enrolled in this program who desire to become degree candidates on the University campus must meet regular admission requirements for freshmen or transfer students.

An additional dimension of the Extension Program includes offering undergraduate and graduate instruction in the field of education to qualified students at off-campus sites. Utilizing faculty from the School of Education, these courses are offered to meet the staff development and/or graduate education requirements of local teachers.

Further information concerning the Extension Program may be obtained by contacting the Director of Special Programs.

SUMMER SESSIONS

The Summer Sessions constitute an integral part of the University's academic year. Students may take advantage of several unique programs related to the marine environment and other interesting subject areas. There are a variety of courses offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to remove deficiencies. During the summer sessions, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. In addition, public school teachers may wish to renew or change fields of certification; or they may want to pursue a program of graduate studies in the School of Education.

Summer Sessions at UNCW offer students an opportunity to combine leisure with some creative learning experiences.

Further information concerning the Summer Sessions may be obtained by contacting the Director of Special Programs.

GRADUATE STUDIES

GRADUATE STUDIES

The University of North Carolina at Wilmington offers programs of study leading to the Master of Business Administration degree, the Master of Education degree, and the Master of Science degree in Marine Biology.

The Master of Business Administration program is an advanced degree program designed to enhance the development of the professional manager. The program consists of three parts: a common body of knowledge essential for managers of business firms and other organizations; a series of courses in various functional areas of business that enable the development of expertise in general management; and electives consistent with individual career objectives.

The Master of Education degree is granted in Elementary Education, in Special Education, and in Educational Administration and Supervision. The program in Elementary Education offers specialties in (a) Early Childhood Education and (b) Intermediate Education. The program in Special Education is cross categorical. The program in Educational Administration and Supervision offers specialties in (a) Administration leading to certification for the professional role of principal, and (b) Supervision leading to certification for the professional role of curriculum-instruction specialist.

The Master of Science degree program includes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each track is designed to provide the necessary latitude to allow the student, in consultation with a faculty committee, to develop an appropriate program of study.

These programs provide capable students an opportunity to pursue advanced study, training, and research designed to enhance their academic and professional development.

ADMISSIONS: MASTER'S DEGREE PROGRAM

General Admissions Requirements

For admission to a graduate degree program at The University of North Carolina at Wilmington, the applicant must (1) hold a bachelor's degree from an accredited college or university in this country or its equivalent in a foreign institution based on a four-year program; (2) have a strong overall academic record with a B average or better in the basic courses prerequisite to the area of proposed graduate study; and (3) present satisfactory scores on the specified examination. (Test scores more than five years old at the time of application will not be considered.) In addition, students who are taking or have taken graduate work elsewhere must be in good standing at that institution to be eligible to take graduate work at UNCW.

Applications for admission to a graduate degree program should be filed in the Graduate Office at least sixty (60) days in advance of the term in which admission is sought. If an admitted applicant does not register for the term specified in this application, his or her admission will be subject to review at a later date. In some cases, students who are not seeking a graduate degree may be permitted to take graduate courses as a Special Graduate enrollee. Such permission to take graduate courses as a Special Graduate Student does not constitute admission to a graduate degree program.

Each student admitted to a graduate degree program must have a completed medical report form before initial registration may be effective. A student who leaves the University and does not register for at least one semester must apply for readmission to graduate studies, but need not submit another medical report form.

Graduate students are subject to the same University policies and regulations as undergraduates unless otherwise stated.

Requirements for Admission to Master of Business Administration Program

Applicants seeking admission to the graduate program in Business Administration are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
(3) official scores on the Graduate Management Admission Test (GMAT)
(4) three recommendations including one from an employer or supervisor who can comment on the applicant's work experience and potential for successful completion of a master's program

A strong overall academic average, a total score of 1,000 or more based on the formula: 200 times the upper division grade point average (4.0 systems) plus the GMAT score, and at least one year of appropriate full-time work experience are minimum requirements for graduate admission. However, admission decisions are based upon several factors; and if other indicators of success are evident, individuals who fall below the established criterion in one of the areas may be considered for admission.

Requirements for Admission to Master of Education Programs

Applicants seeking admission to a graduate program in Education are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
(3) official scores on the Miller Analogies Test
(4) three recommendations by individuals in relevant professional fields

A score of 40 on the Miller Analogies Test and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors, and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

In addition to the general requirements, applicants to the program in Elementary Education are required to hold, or be qualified to hold, North Carolina "A" teacher certification in Early Childhood Education or Intermediate Education. Applicants to the program in Special Education are required to hold or be qualified to hold North Carolina Class "A" special education teacher certification in at least one area of exceptionality. Applicants to the Educational Administration and Supervision program are required to hold, or be qualified to hold, North Carolina Class "A" elementary or secondary teacher certification.

Under exceptional circumstances, individuals who do not hold the specified teaching credential may be admitted. Such exceptions may be made in cases of otherwise qualified applicants who are engaged in relevant professional roles not requiring teacher certification and who may profit professionally from the type of advanced study offered at this institution. Examples of applicants for whom exception is appropriate may include community college administrators and teachers. In such instances, the programs may be modified appropriately. Individuals admitted under such exceptions are not qualified, however, upon completion of the graduate program for the institution's recommendation for North Caorlina Board of Education instructional or administrative certification.

Students who seek professional improvement but do not intend to pursue a degree may register for graduate courses through procedures established for Special Graduate Students.

Requirements for Admission to Master of Science Programs

Applicants seeking administration to a graduate program in Marine Biology are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
*(3) official scores on the Graduate Record Examination, verbal and quantitative
(4) three recommendations by individuals in professionally relevant fields

A score of 1000 on the Graduate Record Examination (verbal and quantitative) and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors; and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

Although interviews are most helpful to both the faculty and to the graduate applicant, they are not required.

*Students seeking admission to the program in Marine Biology are also required to take the Graduate Record Advanced Test in biology.

Application forms and other admissions information may be obtained by writing to the Office of Graduate Studies, The University of North Carolina at Wilmington, 601 South College Road, Wilmington, North Carolina 28403-3297.

EXPENSES

The Board of Governors of The University reserves the right to change the charges for tuition, fees and the room and board rate at any time without prior notice.

Tuition and Fees

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Charges Per Semester:

	In-State Students	Out-of-State Students*
Tuition	$175.00	$1,300.00
Fees	183.00	183.00
Total	$358.00	$1,483.00

Other Fees:

Application Fee (to accompany application, nonrefundable)	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Graduate students registering for nine or more semester hours will be charged at the full-time rate. Students scheduling fewer than nine semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
1-2	$ 73.50	$ 354.50
3-5	117.50	679.50
6-8	173.00	1,017.00

The privileges of students taking fewer than nine hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $15.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

*See information on residency at the end of this section.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full before a student may reenter at the beginning of any semester.

On-Campus Living

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,045.00
Room and Board:	21 meals	$1,070.00

Three meal plans are available for apartment students. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,132.50
Apartment and Board:	15 meals	$1,157.50
Apartment and Board:	21 meals	$1,182.50

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

Those interested in obtaining information should contact:

Housing Office
The University of North Carolina at Wilmington
601 S. College Rd.
Wilmington, North Carolina 28403-3297

Summer Session

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

Refunds – Tuition

A student who officially withdraws from the University on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid. Students withdraw-

ing from the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to *complete* withdrawals from UNCW. If you simply reduce your course load after the Drop/Add period, you will receive *NO* refund reduction of fees whatsoever.

Refunds – Financial Aid

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

Refunds – Housing

Housing agreements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except as provided for below:

a. Agreements may be cancelled without forfeiture of deposit before May 19. Written notice of cancellation must be furnished to the Director of Housing.
b. Agreements may be cancelled with forfeiture of deposit between May 19 and the opening date for fall semester. Room rent for the fall semester will not be refunded after the opening date.
c. Agreements entered into for the spring semester only may be cancelled without forfeiture of deposit before December 1 and with forfeiture of deposit between December 1 and the opening date for spring semester. Room rent for the spring semester will not be refunded after the opening date. Written notice of cancellation must be furnished to the Director of Housing.
d. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

Residency Status for Tuition Payment

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the institution of that statement to be conditioned by the statement beginning on page 30 of this catalogue.

The initial classification of graduate students as in-state or out-of-state residents for tuition purposes is made by the Office of the Director of Graduate Studies. Appeals for in-state status may be made to the campus appeals body, Out-of State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Educa[illegible]nstitutions of North Carolina in the Matter of Student Residence Classification for [illegible] Purposes." Each enrolled student is responsible for knowing the contents of thi[illegible]al. Copies of the manual are available in the undergraduate Admissions Office and [illegible]dent Affairs Office for inspection upon request.

FINANCIAL AID FOR THE GRADUATE STUDENT

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general **Minority Presence Grant Program,** black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

ASSISTANTSHIPS

Teaching and Research Assistantships are available on a limited basis through the Department of Biological Sciences. The admission application process determines candidates.

Graduate Assistantships are available on a limited basis through the School of Education. For information contact the Dean of the School.

LOANS/COLLEGE WORK STUDY PROGRAM

Students who are enrolled at least half-time in the Graduate Studies Program at UNCW may apply for the following types of financial aid:

The North Carolina Insured Loan Program provides students with long-term, low-interest loans. Under this program, the student borrows from College Foundation, Inc., and repays the loan after completion of a graduate degree. The repayment period begins six months after graduation, and the borrower may take up to ten years to repay the loan. The interest is eight percent and begins to accrue six months after completion of degree or withdrawal from school. Application for the N.C. Insured Loan should be made directly to College Foundation, Inc., 1307 Glenwood Avenue, Raleigh, N.C. 27605. The maximum amount that a student may borrow under the program is $5,000 per academic year. To be eligible for this program, a student must be enrolled for at least half-time and be a North Carolina resident and demonstrate need or come from a family with an adjusted income of $30,000 or less.

The Federally Insured Student Loan Program provides assistance to students who are non-residents who may be eligible to borrow long-term, low-interest loans through approved lenders in their home states. This program is essentially the same as the N.C. Insured Loan Program. Addresses for these state agencies may be obtained from the Financial Aid Office.

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least half-time and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

For additional information, contact the Financial Aid Office.

VA Educational Benefits

Veterans and dependents are urged to utilize their VA Educational Benefits while enrolled in the graduate programs at the University. The available benefits are determined by the amount of eligibility time a veteran or dependent has remaining and the delimiting date that is involved.

For further assistance, contact the Veterans Coordinator in the Student Financial Aid Office.

ACADEMIC REGULATIONS AND PROCEDURES

Registration

No minimum number of hours is required for official registration; however, specified maximum course loads must not be exceeded. Students in a graduate degree program are permitted to register for no more than 15 hours in any one semester. Course loads for students who have service appointments will be determined on an individual basis. A student enrolled in the summer may not register for, and will not receive credit for, more than six hours a term.

Course Credit

Courses Eligible for Degree Credit

For courses offered at this institution, graduate course credit may be received only for courses taken after a student has been formally admitted to graduate studies, except as described in the paragraphs below.

Final semester seniors at this institution with at least a B average in the major who need fewer than 15 hours to complete requirements for the bachelor's degree may take one or two graduate courses for the purpose of later receiving graduate credit, provided that they are not enrolled for more than a total of 15 hours. To do this the student must (1) obtain permission in advance from his or her department chairman or School dean as appropriate, and (2) present it to the Director of Graduate Studies for approval. Graduate courses taken under this provision may not be used in fulfilling baccalaureate degree requirements. Undergraduate students at other institutions who have taken graduate course work under similar arrangements may not transfer such work here.

Graduate courses taken at this institution before formal admission to graduate studies will meet course requirements for a graduate degree only if offered and approved as transfer credit, and no more than six credit hours of such courses are eligible for transfer.

Degree related extension courses offered at this institution may be applied toward a graduate degree as follows: (a) with the approval of the appropriate Dean, a non-degree student may apply for a maximum of six hours of relevant courses as transfer credits at the time of admission to a program, (b) with the prior approval of the appropriate Dean, a student who is already admitted to a degree program may apply up to six hours of relevant courses toward the residence requirement. Request for application of an additional six hours toward the residence requirement may be submitted to the Graduate Administrative Board.

Transfer of Course Credit

A maximum of six semester hours of graduate credit may be transferred from another accredited institution, or for courses taken at this institution before admission to graduate studies, in partial fulfillment of the total hours required for the master's degree. Correspondence courses will not be accepted for transfer credit. When special circumstances warrant, students may petition the Graduate Administrative Board for transfer of more than six semester hours. Each such petition must be accompanied by a statement of endorsement from the appropriate Dean.

Grades earned on transferred work must be equivalent to B or better. Transferred credit will be accepted by the Director of Graduate Studies only upon recommendation of the Dean of the School or College in which the student is enrolled. The graduate office must have an official transcript showing the satisfactory completion of courses offered for transfer credit. The courses must have been taken within the allowed time limits for the degree. Transfer of credit does not reduce minimum residence requirements for a master's degree.

A student in graduate studies who wishes to take one or more courses elsewhere for graduate degree credit must obtain prior approval from the appropriate Dean and Director of Graduate Studies.

Courses Approved for Undergraduate Credit Only

Courses approved for undergraduate credit only may not become a part of the graduate degree program and do not carry either course or residence credit.

A graduate student who is required to take undergraduate courses, whether as a requisite for admission or for other reasons, or who takes such courses in the field of his or her graduate major, must make grades of at least B on all such courses in order to maintain eligibility as a graduate student.

A graduate student voluntarily electing to register for undergraduate courses may make any grade above F without jeopardy to his or her graduate standing.

Adding, Dropping, Withdrawing

Courses may be added only in the official Drop/Add period, which is noted in the Calendar of Events. To add a course, the student must present to the Director of Graduate Studies a Schedule Revision Card signed by his or her advisor and the course instructor.

Every course for which a student is registered must be either completed or formally dropped; however, no course may be dropped in the last five weeks in a semester or during the last week of summer session.

To drop a course, the student must obtain a Schedule Revision Card from his or her advisor. If the advisor approves, the student must obtain the instructor's signature and indication of whether the student is passing or failing the course. The Schedule Revision Card must then be presented to the Director of Graduate Studies for his approval.

If, at the time a student drops a course, performance in that course is judged by the instructor to be passing, a grade of WP is assigned on the student's permanent record; however, if the student is judged by the instructor to be failing, a grade of F is assigned on the student's permanent record, and the student becomes ineligible for further registration.

A student may not use a Schedule Revision Card to drop his or her only course but must officially withdraw from the University. To withdraw officially from the University, a student must come to the office of the Director of Graduate Studies and complete a permit to withdraw.

Graduate Grading

Grades for graduate students enrolled in graduate courses must be reported as one of the following:

H – clear excellence
P – entirely satisfactory
L – low passing
F – fail
S – satisfactory progress on thesis
I – work incomplete
WP – withdraw passing

A student receiving grades of L on any three courses or on 12 semester hours (whichever comes first) or any grade of F is ineligible to continue in graduate studies.

When special circumstances warrant, students declared ineligible under the preceding paragraph may be reinstated upon petition by the student to the Graduate Administrative Board. Each such petition must be accompanied by a statement of endorsement or nonendorsement from the Dean of the School or College in which the student is enrolled. Any reinstatement is provisional in that an additional grade below P will again result in the student's ineligibility.

An incomplete grade may be given if the course instructor determines that exceptional circumstances warrant extending the time for the student to complete the course work. The instructor may set the maximum allowable period for completion of the course work, but in no case will extension exceed one year. If the time allowed is to be less than one year, this information should be transmitted in writing to the student, with a copy to the Direc-

tor of Graduate Studies. If within 12 months a grade change request has not been submitted by the instructor, the incomplete automatically becomes an F.

Grades of H, P, L, S, F, and WP are permanent grades and can be changed only by the Director of Graduate Studies in cases of arithmetical or clerical error or as a result of protest of grade.

Procedure for Protest of Grade

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. Such appeal must be made not later than the last day of the next regular semester.

The student shall present the appeal in writing to the Dean of the College or School within which the protested grade was awarded. By conferring with the student and the instructor, the Dean will seek resolution by mutual agreement. Failing such resolution, the Dean will transmit the written appeal to the Director of Graduate Studies. The Director will convene the Grade Appeals Committee.

The Grade Appeals Committee will consist of the Director as chairman and five members of the graduate faculty appointed by the Director. If the Committee affirms the instructor's decision, the Director will notify in writing the faculty member, the student, and the appropriate Dean. If the Committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

Residence Credit Computation

Conversion of semester hours to residence credit is on the following basis:

1. Nine or more semester hours in a given semester earn a full semester of residence.
2. Six to eight semester hours earn one-half semester of residence.
3. Three to five semester hours earn one-fourth semester of residence.
4. Credits earned in any summer session count towards residence credit on the same basis as courses taken in regular semesters.

Master's Degree Examination

Every master's candidate must pass either a written comprehensive examination covering his or her field of study, or an oral comprehensive examination covering all course work required for the degree, or both, according to the decision of his or her department or School. Neither examination may be taken until the course work is completed or until the final courses are in progress and must be scheduled in conformance with the deadline established by the Dean of the School or College in which the student is enrolled. If a thesis is required, a final oral defense of the thesis may be required in addition to the comprehensive examination, or as part of the oral examination.

A committee of at least three members of the graduate faculty (at least two of whom must be in the major program) evaluates the student's work for the master's degree, approves any thesis required, and administers any oral examination that may be given. If the student has a minor field of study, at least one member of the student's committee must represent the program of the minor.

A master's candidate who fails either a comprehensive written or oral examination may not take the examination a second time until at least three months have elapsed. No student may take an examination a third time without approval of the Graduate Administrative

Board. A student passes an examination only on approval by at least two-thirds of the members of the examining committee. The vote of the examining committee is considered to be final.

Registration for Thesis

Every student required to write a master's thesis must register for a minimum of three hours of thesis credit. A maximum of six credit hours for the thesis may be used toward course requirements for the master's degree. During each term that a student is working on a thesis, he or she should register for as many hours as are academically appropriate, except that, if the required hours of thesis credit have been taken, the student may register for zero credit hours so long as this is the only coursse for which he or she is registered.

Any student engaged in thesis research and/or writing that involves the use of University faculty or facilities must be registered during the semester or summer session in which he or she is using faculty time or facilities, whether the student is in residence or not. This registration may be for zero credit hours if the student had registered previously for the required number of semester hours of thesis credit. Provided that no use of University faculty and/or facilities is required, a student need not be registered in the semester in which the degree is to be awarded.

Foreign Language Requirement

Foreign language requirements differ from one graduate degree program to another. At an early stage, a graduate student should consult his or her graduate program advisor concerning what foreign language, if any, will be required. The requirement for a student in a given program must be one of the options approved for that program by the Graduate Administrative Board.

Each department or curriculum shall determine when a graduate student must fulfill a foreign language requirement, provided that such requirement be satisfied before a student is admitted to candidacy. At the time a student requests admission to candidacy, his or her Dean will be asked to certify on the application of candidacy that such requirement has been met.

Application for Admission to Candidacy and for the Degree

A student in a master's degree program applies for admission to candidacy at the time of application for the degree. To be eligible for graduation each student must apply for a specific graduation on or before the deadline shown in the Calendar of Events.

If a student has already applied for candidacy and for the degree but fails to meet a deadline for a particular graduation, he or she must reapply for the degree, specifying a new graduation date.

Degree Time Limits

A graduate student has five calendar years from the date of first registration in the graduate program to complete the master's degree. Courses transferred from other graduate schools for application toward degree requirements must have been taken within the specified time limits for that degree.

When extenuating circumstances warrant, an extension of the degree time limit may be granted a student upon his or her petition to the Director of Graduate Studies. At the same time such a petition is filed, the student should request the Dean of the School or College in which he or she is enrolled to forward to the Graduate Administrative Board a recommendation regarding the extension.

MASTER OF BUSINESS ADMINISTRATION

The University of North Carolina at Wilmington offers a program of study leading to a Master of Business Administration degree for any qualified holder of a bachelor's degree from an accredited college or university regardless of undergraduate field of study. The program's objective is the development of the broadly educated professional manager.

Degree Requirements

1. Fifty-four semester credit hours of approved graduate credit must be satisfactorily completed for the degree. This number of credit hours may be reduced for students who qualify for and are granted certain course waivers. Petitions for waiver are submitted to the Dean of the Cameron School of Business Administration upon acceptance for admission into the program. Despite the number of waivers granted, a minimum of 42 semester hours of graduate study must be completed. Up to six hours of graduate study may be accepted as transfer from an accredited college or university. However, the last 36 hours of graduate study must be completed at The University of North Carolina at Wilmington.

2. The student must satisfy a minimal mathematics requirement in calculus. This requirement may be satisfied by completing Mathematics 205, its equivalent, or by passing the Advanced Placement Test (AB) in calculus.

3. The student must successfully complete a qualifying examination consisting of a written comprehensive examination.

4. Each student must complete the approved course of study within five years of the date of first registration for graduate study.

Course Requirements for the Master of Business Administration Degree

Students with undergraduate or graduate work in business administration may have the program of study reduced through waivers for certain courses. Students with no prior work in business administration will be required to take the following program.

A. Common Body of Knowledge (24 semester hours)

The following courses comprise the common body of knowledge essential to a basic understanding of modern business and managerial practice. These courses must be completed by each student unless evidence of substantial academic work in such courses at the undergraduate or graduate level is presented. Requirements may be waived on a course-by-course basis by the MBA Admissions Committee subject to approval of the Dean of the Cameron School of Business Administration.

ACG 501	Financial Accounting (3)
ECN 520	Economic Analysis I (3)
BUS 503	Quantitative Methods (3)
BUS 508	Management Information Systems (3)
BUS 510	Legal Environment and Business Regulation (3)
BUS 550	Management of Organizations (3)
FIN 535	Managerial Finance (3)
MKT 545	Marketing Management (3)

B. Professional Competence and Integrative Applications (24 semester hours)

In addition to the Common Body of Knowledge, the following courses develop depth and breadth of knowledge and provide analytical skills for practical application. All students will be expected to complete these courses unless *extensive* evidence of prior study in such courses at the undergraduate or graduate level is presented. Although waiver of courses in this group is rare, requirements may be waived on a course-by-course basis by the MBA Admissions Committee subject to the approval

of the Dean of the Cameron School of Business Administration. NO WAIVERS OR TRANSFER CREDIT WILL BE GRANTED FOR BUSINESS 555, BUSINESS 565, AND BUSINESS 595 UNDER ANY CONDITIONS.

ACG 502 Managerial Accounting (3)
ECN 521 Economic Analysis II (3)
BUS 555 Practice of Management (3)
BUS 557 Production/Operations Management (3)
BUS 565 Current Issues in Business (3)
BUS 595 Corporate Policy and Strategy (3)
FIN 536 Financial Policy (3)
MKT 546 Strategic Marketing (3)

C. Electives (6 semester hours)

Candidates will strengthen their knowledge and sharpen their skills in particular areas by taking at least two courses from the five elective areas: Accountancy, Economics, Management, Marketing, and Finance.

GRADUATE PROGRAM IN BUSINESS ADMINISTRATION

Course Descriptions

ACCOUNTANCY

ACG 501. Financial Accounting (3) An intensive course in accounting principles with special emphasis on the concepts underlying income determination, preparation and interpretation of financial statements and the managerial uses of accounting information. Topics include transaction analysis, asset valuation and expense recognition, capital structure and tools of financial analysis.

ACG 502. Managerial Accounting (3) Prerequisite: Accounting 501. Interpretation and use of accounting information in the planning, coordination and controlling of business activities. Topics include cost behavior, manufacturing and distribution cost-volume-profit relationships; effects of taxation and price level changes on business decisions; budgeting and responsibility accounting. Case studies emphasized.

ACG 503. Advanced Managerial Accounting (3) Prerequisite: Accounting 502. An in-depth study of cost concepts appropriate for decision-making and of the budgetary procedures used in planning and control. Emphasis is placed on relating recent advances in the quantitative and behavioral sciences to the role of the contemporary managerial accountant. Case analysis is emphasized.

ACG 506. Current Issues in Financial Accounting (3) Prerequisite: Accounting 501. Advanced study of the principles and theory underlying the preparation of financial statements. Consideration is given to the problems related to pension plans, long-term leasing arrangements, refunding of bonds outstanding, allocation of income taxes, changing price levels, and other controversial issues. Utilizes text, authoritative statements, and articles from the current literature.

ACG 508. Taxation and Business Decisions (3) Prerequisite: Accounting 502. The accounting and managerial effects of taxation upon decisions, policies, and procedures in the planning, organization, and operation of a business enterprise. Areas covered include the taxing process; taxation of individuals, corporations and fiduciaries; investment incentives; capital gains and losses; tax shelters; and tax planning. Problems and case analysis are used.

ACG 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

BUSINESS MANAGEMENT

BUS 503. Quantitative Methods (3) Prerequisite: Completion of mathematics through calculus. Techniques for the analysis of business data. Topics include descriptive and inferential statistical methods, probability, decision theory, and linear programming.

BUS 504. Advanced Quantitative Methods (3) Prerequisite: Business 503. Quantitative techniques for the solution of business problems. Topics include mathematical programming, simulation, queueing theory, network theory, and game theory. Emphasizes the mathematical formulation and solution of problems using a computer.

BUS 507. Advanced Business Statistics (3) Prerequisite: Business 503. Advanced statistical applications used to support the business decision-making process. Topics include multiple linear regression, nonlinear regression, time series analysis, experimental design, decision theory, and non-parametric statistics.

BUS 508. Management Information Systems (3) A study of the process of analyzing, designing, and implementing computer based systems which have information as their product. Minicomputer and microcomputer projects provide opportunities for comparing concepts with actual systems. An introduction to the BASIC programming language and orientation on the VAX minicomputer system are integral parts of the course.

BUS 510. Legal Environment and Business Regulation (3) A study of the management process and how it is influenced by the constitutional, legislative, judicial, regulatory, administrative, and social forces exerted on the business and social environment.

BUS 550. Management of Organizations (3) A study of fundamental principles associated with managing organizations. Particular attention is directed to planning, organizing, staffing, directing, and controlling the organization's human and economic resources. Includes an examination of the historical development of organizations.

BUS 555. Practice of Management (3) Prerequisite: Business 510 and Business 550. Major problems and decision areas confronting middle and upper-level managers. Topics include long-range planning, management by objectives, project management, leadership style, and performance appraisal. Case analysis is used to foster application of current managerial techniques to the analysis, solution, and prevention of organizational problems.

BUS 556. Personnel and Labor Relations (3) Prerequisite: Business 550. A study of manpower planning, training and development, job analysis, employee evaluation, labor legislation, and the collective bargaining process. This course is designed to foster a managerial understanding of the management of human resources rather than a technical orientation.

BUS 557. Production/Operations Management (3) Prerequisite: Business 504 and Business 550. Techniques to aid the operations manager in making key decisions dur-

ing the initial, online, and control stages of production. Topics include product and process design; facility size, location and layout; demand forecasting; production and work force planning; quality control; and facilities maintenance. Formulation of problems for solution by the computer is an integral part of the course.

BUS 558. Organizational Behavior (3) Prerequisite: Business 550. An examination of the persistent human problems in organizations including motivation, resistance to change, interpersonal and intergroup conflict, managing superior/subordinate relations. This course incorporates ideas from the behavioral sciences to provide a foundation for identifying and solving the human side of an organization's operations. Case studies are emphasized.

BUS 565. Current Issues in Business (1-3) Current and emerging issues which affect and are affected by business. Focuses upon identifying, understanding, and predicting constraints and opportunities relevant to the managerial decision process. Topics will vary from one course offering to another. (At least three (3) hours of this course are required of all candidates.)

BUS 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

BUS 595. Corporate Policy and Strategy (3) Prerequisite: To be taken in the final year of the candidate's program of study. An integrative course focusing on factors considered by top-level executives in formulating both short-term and long-term corporate strategy. Particular attention is directed toward analysis of business trends, development of corporate strengths, and formulation of policies and plans. Involves extensive use of case analysis.

ECONOMICS

ECN 520. Economic Analysis I (3) Prerequisite: Completion of mathematics through calculus. Economic analysis of demand, cost, resource allocation, and decision making in alternative market structures. Additional topics include regulatory effects, pricing strategy, and business forecasting.

ECN 521. Economic Analysis II (3) Prerequisite: Economics 520 and Business 503. An examination of the economic environment in which businesses make decisions. Topics include monetary and fiscal policy as they affect the availability and cost of funds and the effect of government regulation and tax policy on firm investment decisions. Particular attention will be paid to the factors affecting current and future inflation, unemployment, and exchange rates.

ECN 546. International Trade and Finance (3) Prerequisite: Economics 521 and Finance 535. A study of the principles of underlying world trade, exchange rate adjustments, balance of payments analysis, international financial markets, direct foreign investment, the international monetary system and the new international economic order. Discusses U.S. commercial policy, transnational corporations, international joint ventures, economic integration, preferential treatment and world-wide trading practices.

ECN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

FINANCE

FIN 535. Managerial Finance (3) Prerequisite: Accounting 501 and Economics 520. Financial decision-making in the modern business organization. Topics include the acquisition and use of funds, capital budgeting, cost of capital, capital asset pricing, portfolio analysis and financial statement analysis. Case studies emphasized.

FIN 536. Financial Policy (3) Prerequisite: Finance 535. Conceptual foundations for a theory of financial management, the structure of major areas of financial management and the theoretical content and validity of formalized techniques for improving decision making in the areas of capital budgeting, capital structure, cost of capital, dividend policy and mergers. Case studies will be used to supplement the conceptual foundations. Emphasis will be on the policy decisions and how they affect the valuation of the firm.

FIN 537. Financial Institutions and Markets (3) Prerequisite: Economics 521. Financial institutions as suppliers of funds to the money and capital markets. Comparative financial policies and portfolio considerations of instutions in the context of their changing market environments. The impact of the economic and regulatory climate on portfolio adjustments will also be examined. Cases will be used extensively.

FIN 538. Investments and Portfolio Analysis (3) Prerequisite: Finance 535. Analysis of financial assets as appropriate investment alternatives. Analysis and evaluation of securities and portfolio management. Securities market information and theories of security selection will be examined.

FIN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MARKETING

MKT 545. Marketing Management (3) An examination of the major factors to be considered in the analysis, development, and control of marketing programs. Particular attention is directed to decisions concerning product service offering, price strategy, promotional methods, and the channels of distribution. Emphasis is placed on the role that marketing plays in the overall operation of the firm.

MKT 546. Strategic Marketing (3) Prerequisite: Marketing 545. Major factors considered are setting marketing objectives, identifying market opportunities, selecting target markets, developing new products, formulating integrated marketing strategies, and solving marketing problems. Case analysis is used extensively to foster the application of marketing models and techniques to improve organizational performance.

MKT 548. Promotional Management (3) Prerequisite: Marketing 545. Theories and practices of advertising, sales management, and sales promotion as they relate to the total marketing effort. Attention is directed to sales forecasting, media analysis, and

the criteria for evaluating the results of the integrated marketing program. Case study is emphasized.

MKT 549. Marketing Research and Analysis (3) Prerequisite: Business 503 and Marketing 545. An examination of methods of gathering, processing, and analyzing information from the marketplace. Topics covered include problem identification, research design, primary and secondary sources of data, methods of data collection, scaling methods, and sampling techniques. Particular attention is directed to data generation methods and improving marketing decision-making.

MKT 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MASTER OF EDUCATION

The University of North Carolina at Wilmington offers three master's degree programs in professional education: (1) a Master of Education program in Elementary Education, (2) a Master of Education program in Special Education, and (3) a Master of Education program in Educational Administration and Supervision with tracks in Educational Administration and Curriculum Supervision. Program requirements are outlined below.

Elementary Education

The program leading to the Master of Education in Elementary Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Early Childhood Education (K-4), or Intermediate Education (4-6) or Middle School Education (6-9). Within the program, specialties are offered in Early Childhood Education or Intermediate Education. The 36-semester-hour program is comprised of 15 semester hours of conceptual and technical studies common to both specialties, 15 semester hours in the area of specialization, and six semester hours of electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Elementary Core
- EDN 500 Human Development and Learning (3)
- EDN 502 The School as a Social System (3)
- EDN 520 Instructional Development (3)
- EDN 523 Research in Education (3)
- EDN 530 Curriculum (3)

II. Early Childhood Education Track
- EDN 501 Language Development (3)
- EDN 531 Study of Teaching in Early Childhood Education (3)
- EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
- EDN 542 The Teaching of Mathematics (3)

Elect *one* of the following *two:*
EDN 543 The Teaching of Social Studies (3) or
EDN 544 Teaching of Science in the Elementary Schools (3)
Electives Six (6) semester hours.

EDN 599, Thesis, may be selected (6 semester hours)

III. Intermediate/Middle School Education Track
A. Common Requirements
*EDN 536 Teaching Reading in the Content Areas (3)
EDN 549 Middle School Education (3)

B. Concentration (Select "1" or "2" or "3" below)
1. Language Arts Concentration (Required of teachers with Class "A" Language Arts Concentration)
EDN 537 Linguistics for Teachers (3)
Six (6) semester hours elected from the following:
EDN 501 Language Development (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
EDN 538 Teaching of Writing (3)
EDN 540 Adolescent Literature (3)
EDN 541 Speech Activities in the Classroom (3)

2. Math/Science Concentration
Select three (3) courses, 2 from 1 area – either math or science.
EDN 542 The Teaching of Mathematics (3)
EDN 544 Teaching of Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 548 Inquiry–The Method of Science (3)

3. Interdisciplinary Concentration
Select three (3) courses among the following in Elementary Instruction representing three (3) of the following content areas: Language Arts, Social Studies, Mathematics, Science.
EDN 501 Language Development (3)
*EDN 535 Diagnosis and Teaching in Reading/Language Arts (3)
EDN 537 Linguistics for Teachers (3)
EDN 538 Teaching of Writing (3)
EDN 539 Children's Literature
EDN 540 Adolescent Literature (3)
EDN 542 The Teaching of Mathematics (3)
EDN 543 Teaching Social Studies in the Elementary School (3)
EDN 544 Teaching Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 548 Inquiry–The Method of Science (3)

C. Electives, Six (6) semester hours

EDN 599, Thesis, may be selected (6 semester hours)

*Field-based activites will be required in this course. Such activities will be cooperatively designed and supervised by University and field peresonnel.

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, *Instructional Development.* A comprehensive examination will be required.

Special Education

The program leading to the Master of Education in Special Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Special Education in at least one area of exceptionality. The program is cross categorical in nature with emphasis in three areas of the mildly handicapped; mental retardation, learning disabilities, and emotionally handicapped. The 36-semester-hour program is comprised of 15 semester hours of conceptual and technical studies, 15 semester hours in the area of specialization, and six semester hours of controlled electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a concentration in special education.

I. Special Education Core
   - EDN 501 Language Development (3)
   - EDN 503 Exceptional Child Development (3)
   - EDN 511 Organizational Behavior (3)
   - EDN 523 Research in Education (3)
   - EDN 530 Curriculum (3)

II. Concentration (21) hours)
   - A. Group 1 (15 hours)
     - EDN 524 Consultation Strategies for Teachers of Exceptional Children (3)
     - *EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
     - *EDN 546 Diagnosis and Remediation in Mathematics (3)
     - EDN 552 Program Development for the Mildly Handicapped (3)
     - EDN 553 Classroom Management of Mildly Handicapped Children (3)
   - B. Group 2 (6 selected hours)
     - EDN 504 Issues and Trends in Special Education (3)
     - EDN 554 Educating Young Handicapped Children (3)
     - EDN 555 The Mildly Handicapped Adolescent (3)
     - EDN 556 Mental Retardation in School and Society (3)
     - EDN 557 Learning Disabled Children and Adolescents (3)
     - EDN 558 Educating Emotionally Disturbed Children (3)
     - EDN 591 Independent Study (3)
     - EDN 595 Selected Topics in Education (related to exceptional children) (3)
     - EDN 599 Thesis, may be selected (6)

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, Research in Education. A comprehensive examination will be required.

Students who are accepted provisionally (without special education certification) will need to take additional undergraduate courses to become certified.

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Educational Administration and Supervision

The Master of Education program in Educational Administration and Supervision provides educational leadership training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification. Within the program, specialties are offered leading to certification for the professional roles of principal or curriculum-instruction specialist. The thirty-three semester-hour program is comprised of fifteen semester hours of conceptual and technical studies common to both specialties, twelve semester hours in the area of specialization, and six semester hours of electives.

Based upon the view of the professional as a decison-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Administration-Supervision Core
   - EDN 502 School as a Social System (3)
   - EDN 510 Organizational and Control of American Education (3)
   - EDN 511 Organizational Behavior (3)
   - EDN 521 Decision-Making (3)
   - EDN 523 Research in Education (3)

II. Administrative Track
   - EDN 512 Legal Structures in Education (3)
   - EDN 560 Personnel Administration (3)
   - *EDN 561 Leadership Application (3)
   - *EDN 570 Internship in Educational Administration (3)
   - Electives, Six (6) semester hours

III. Supervision Track
   - EDN 500 Human Development and Learning (3)
   - *EDN 520 Instructional Development (3)
   - *EDN 530 Curriculum (3)
   - *EDN 571 Internship in Educational Supervision (3)
   - Electives, Six (6) semester hours

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

No language requirement is stipulated. Competency in appropriate inquiry procedures will be developed through the required courses, EDN 521, Decision Making and EDN 523, Research in Education. A comprehensive examination will be required.

GRADUATE PROGRAM IN EDUCATION

Course Descriptions

EDN 500. Human Development and Learning (3) Designed to provide foundations for decision-making in teaching and education, this course will focus on patterns of physical and social development and on types of learning. Activities will include analysis, discussion, and application.

EDN 501. Language Development (3) Focus on the development of language and its relation to cognitive processes in young children. Theories of language learning and growth are explored in terms of patterns of evidence and in terms of implications for decision-making affecting school children. Concepts associated with language structure, functions, and processes are developed. A variety of language and language-education topics are explored.

EDN 502. The School as a Social System (3) Designed to develop competency in the analysis of social effects upon behavior within the school, this course will include an examination of role, value, power, and control systems within schools and how these systems relate to the changing functions of the family and work place. This information will be related to curent issues in the educational system, such as compulsory attendance, level of control, biculturalism, etc.

EDN 503. Exceptional Child Development (3) Prerequisite: Education 501. Designed to provide and understanding of the intellectual, emotional, and physical development of exceptional children. The interplay of biological and environmental factors that produce deviations in development is examined. Organized around a developmental approach to the study of exceptionality that suggests strategies for determining bases of exceptionality. Implications of development differences for the special educator will be stressed.

EDN 504. Issues and Trends in Special Education (3) Designed to focus on emerging directions related to the education of exceptional children. Relevant social, educational, bio-medical, developmental, psychological, and legal issues will be examined as well as implications for the schools.

EDN 510. Organization and Control of American Education (3) Designed to include a study of the roles of agencies involved in the governance of education, sources of finance and supportive services. Activities will include lectures, simulated exercises and an opportunity to participate in field activities.

EDN 511. Organizational Behavoir (3) Designed to develop competancy in the analysis of behavior in educational organizations, this course will include an examination of organizational theory with particular attention to the utility of social systems theory as a basis for effective educational leadership. A variety of activities including simulation and case studies will be used to demonstrate application in school settings.

EDN 512. Legal Structures in Education (3) Prerequisite: Education 510 or permission from department. Designed to (1) to develop knowledge of constitutional, statutory, and case law related to education and knowledge of state and local governmental structures and to develop skills and abilities in analysis and design of educational practices for consistency with established legal principles. The course content will include a study of the U.S. and N.C. constitutions, selected state and federal court cases, the N.C. system of educators, federal statutes related to education, and the structures of local governments. Activities will include lecture, discussion, library research, and group and individual analysis of existing school system practices and design of legally-consistent practices.

EDN 520. Instructional Development (3) Designed to provide students with the knowledge and skill required for designing and evaluating instructional plans, units, and educational programs. This course will include concern for such topics as types of learning, learning hierarchies, task analysis, educational goal and objective formulation, assessing learner entry skills, and evaluation. The course will include a variety of activities with a strong emphasis on group problem solving and individual projects. Students will undertake projects relevant to their in-school experience.

EDN 521. Decision-Making (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge, skills, and abilities in identification and analysis of decision situations and decision alternatives, in procedures for choice, and in design and analysis of educational information system. Contents will include study of alternative decision-making models, procedures for choice, evaluation of educational programs, and educational information systems. The activities will include lecture, discussion, and simulated and real applications to decision situations in schools systems.

EDN 522. Educational Media (3) Designed to provide students with the theory and practical skills necessary for selecting, producing, and evaluating mediated materials in education. Students will learn to produce a variety of audio-visual materials including graphics, transparencies, slides, video-tapes. In addition, there will be considerable emphasis on photography including developing and printing. Instruction in operating and troubleshooting equipment will also be treated. The primary goal of this course is to develop confidence and competency in the media area. This course will include lectures and a workshop format. Students will produce a variety of mediated projects during the course.

EDN 523. Research in Education (3) Designed to develop research competencies required for interpretation and critique of research report and for design and conduct of research for educational decision-making. Contents will include measurement, problem identification and analysis, research design, selected statistical analysis procedures, data interpretation and reporting and research critique. Activities will include lecture, discussion, research critique, simulated and actual proposal development, simulated report development, and computer analysis of actual data.

EDN 524. Consultation Strategies for Teachers of Exceptional Children (3) Designed to develop communication skills relevant for the decision-making roles of the special education teacher. Emphasis on group dynamics, conflict resolution, generation of alternative solutions, interview procedures, parent conferences, team meetings, orientation of general educators, and mainstreaming handicapped children.

EDN 530. Curriculum (3) Develops a conceptual framework for understanding curriculum in relation to other aspects of educational systems. Students learn to evaluate curricula in terms of structural elements, underlying value orientations, and assumptions about subject matter and about learning. Introduction to issues of curriculum change, implementation, evaluation, development, and design.

EDN 531. Study of Teaching in Early Childhood Education (3) Prerequisites: Education 500, 501, 502, 520, or department approval. Designed to improve teaching performance and to develop competencies in the critical analysis of teaching in the early

grades, this course will include an in-depth study of teaching in the early grades by observation and participation using different interaction analysis formats for studying and analyzing teaching.

EDN 532. Comparative Studies in Early Childhood Education (3) Prerequsite: Education 502 or approval of department. Designed to provide information for comparing and contrasting preschools from an international perspective, this course will include an in-depth cross-cultural survey of early childhood education in selected countries. The history of philosophical thoughts, the political and socio-economic changes and research efforts from these selected countries of interest to American early childhood educators will be studied and discussed.

EDN 533. Early Childhood Education in Focus (3) Prerequisite: Education 500, 501, 502, or approved of department. Designed to develop the ability to look to current trends and issues in early childhood education. Objectively, this course will include critical analysis of present exemplary programs, practices, resources, and legislation related to early childhood education. The student will be involved in identifying unresolved issues in early childhood education and writing position papers about these issues.

EDN 535. Diagnosis and Teaching of Reading/Language Arts (3) Prerequisite: Education 501 and 530. Designed for the elementary teacher, this course focuses on building the skills and understanding needed to become a diagnostic teacher. In addition to the review of skills sequences in reading/language arts, the student will study a variety of diagnostic material and techniques and will strengthen knowledge about the skills in the selection of appropriate materials, techniques and methods in teaching. Development of informal tests as well as experiences in actual diagnosis will be required.

EDN 536. Teaching Reading in the Content Area (3) Prerequisite: Education 501. Designed for the middle grades teacher of math, science, social studies, and English, this course will identify those skills of reading needed in all content areas as well as those specific to each content area. Emphasis will be placed on the study of strategies useful in teaching reading in the content area classroom. Besides the study of appropraite commercial materials, students will be required to develop their own materials useful for teaching reading in a particular content area.

EDN 537. Linguistics for Teachers (3) A study of current American English and of the principles of scientific analysis of spoken and written language; emphasis on understanding that nature and structure of the language that students bring into the classroom.

EDN 538. The Teaching of Writing (3) Intensive review of principles of grammar, rhetoric and usage (approximately ½ of course), followed by projects using and evaluating actual samples (both expository and creative) from school-age writers; attention also to methods of instruction and to the range, usefulness and availability of classroom materials.

EDN 539. Children's Literature (3) Prerequisite: Education 500, 501, 502, 520, or approval from department. Designed to develop skills and understanding which would

improve teachers' competencies in formulating sound literature programs, this course will include an in-depth study of the functions of children's literature and the different criteria for evaluation of the various types of literature suitable for children at various developmental levels. Areas of influence that are producing change such as paperbacks, minorities in children's books, sexism and censorship will be discussed.

EDN 540. Adolescent Literature (3) A comprehensive study of literature appropriate for the middle grades, its value in the school curriculum and its importance in fulfilling intellectual, emotional, and cultural needs of young people. Evaluation and bibliography are emphasized; classroom techniques and the use of related material are covered. Projects related to instructional preparation and student activities are required.

EDN 541. Speech Activities in the Classroom (3) Designed to develop teacher competency in teaching communication skills. Topics will include communication processes, sequence and scope of communications curriculum, bibliography, and methodology in a range of communications skills. Activities will include lectures; individual and group presentations, and an individual project.

EDN 542. The Teaching of Mathematics (3) Prerequisite: Education 500 and 530. Focus on materials and methods for teaching mathematics in grades K-9, with emphasis on the logical, psychological, and sociological foundations of mathematics education. A survey of curricula appropriate at the K-9 level. Library research in current topics related to the teaching of mathematics.

EDN 543. The Teaching of Social Studies (3) Prerequisite: Education 500, 501, 530. Special emphasis is given to the various techniques and methods to be used in the teaching of social studies. Teaching strategies including simulation, injury and value clarification will be explored through research, observation, demonstration, and, when applicable, field trips. Each student will prepare a major unit of study which will require both individual and group participation.

EDN 544. Teaching of Science in the Elementary School (3) To assure that science at the elementary school level is taught from a theoretical and conceptual base, content will include studying theories and concepts related to science taught a the elementary school level. Activities will include development of successful methods of teaching through the use of individual and group projects. Opportunities will be provided to field test methods proposed. Materials needed for a successful science program and sources from which these materials may be secured will be discussed.

EDN 545. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of material published for classroom use in the public schools and the authors who have made contributions to this field.

EDN 546. Diagnosis and Remediation in Mathematics (3) Prerequisite: Education 500, 530, and 542. The study and application of teaching mathematics in the diagnostic mode. Included will be a historical review of diagnostic procedures in mathematics, a survey of mathematics curriculum, an examination of the theoretical models of

diagnosis and of materials useful to the classroom teacher or clinician. Intensive work with children experiencing difficulty in mathematics will be required.

EDN 548. Inquiry – The Method of Science (3) The course assumes initial level competency in the curriculum and methods of science. The course will focus on the conceptualization of and rationale for using the inquiry method of teaching science. Students will participate in activities taken from a variety of science curriculum programs for elementary through senior high school. The course will also provide students with an opportunity to acquire and practice the skills needed to utilize the inquiry method and to guide scientific investigations at K-12 levels. Methodology and types of activities appropriate to the student's level of teaching will be selected.

EDN 549. Middle School Education (3) Prerequisite: Education 500 and 502. Education 530 recommended. Study of educational programs for upper elementary education (junior high, middle school, intermediate school). Review of learning, physical, and social characteristics of "transescents" and historical and current approaches to their education. Comparison and contrast of curriculum, instruction, administrative and organizational features of exemplary and typical intermediate, middle and junior high schools.

EDN 550. Nature and Needs of Exceptional Children (3) This course is designed to provide a comprehensive survey of the major categories of exceptional children. Emphasis will be on characteristics, etiology, educational procedures, and psycho-social implications. Activities will include lecture, discussion, and practical applications of concepts and strategies. This course is only open to elementary curriculum and administration/supervision students.

EDN 552. Program Development for Mildly Handicapped (3) Prerequisite: Education 502 and 530. Designed to develop an understanding of how to develop and teach relevant curriculum to handicapped children through systemic instruction. Focus on characteristics and etiology, assessment, planning, implementaton of instructional plans, and selection and utilization of appropriate methods and materials for a wide range of curricular areas.

EDN 553. Classroom Management of Mildly Handicapped Children (3) Designed to develop knowledge and skills, necessary for planning and implementing various classroom management strategies. Focus on observation and measurement of behaviors, design of classroom management strategies, utilization of strategies in the special education and regular classroom environment.

EDN 554. Educating Young Handicapped Children (3) Overview of early childhood education for the handicapped. Trends toward early identification of handicapping conditions and appropriate intervention strategies will be examined. Methods for dealing with developmental delays in regular and special preschool settings will be studied. Working with parents and primary caretakers of young handicapped children will be emphasized.

EDN 555. The Mildly Handicapped Adolescent (3) Designed to provide a basis for understanding the educational needs of mildly handicapped adolescents. The follow-

ing topics will be covered during the course: the impact of handicapping conditions on the developmental tasks of adolescence; strategies for the remediation of deficits in basic skills; the interrelationship of vocational intervention; the current status of educational programs for the mildly handicapped.

EDN 556. Mental Retardation in School and Society (3) Emphasis on historical aspects, social and family relationships, characteristics, diagnosis, institutionalization and etiology of mental retardation.

EDN 557. Learning Disabled Children and Adolescents (3) Emphasis on historical aspects, social and family relationship, characteristics, diagnosis and etiology of learning disabled individuals.

EDN 558. Educating Emotionally Disturbed Children (3) Overview of the field of emotional disturbance. Emphasis on the concept of emotional disturbanc and behavorial disorders, etiology, diagnosis, characteristics, teaching and intervention strategies, theory, supportive services, and current trends in the field.

EDN 560. Personnel Administration (3) Prerequisite: Education 502, 510, 511, 521, or permission from department. Designed to develop knowledge, skills, and abilities in specification and analysis of roles and role performance, and in selection, supervision, and utilization of personnel resources. The contents will include educational roles, criteria for role performance, personnel selection criteria and procedures, personnel policies and practices, and labor relations. Activities will include lecture, discussion, analysis and design of simulated and actual personnel procedures, and a variety of simulated personnel related tasks.

EDN 561. Leadership Applications (3) Prerequisite: Education 502, 510, 511, 521, or permission from department. Designed to develop skills and abilities in analysis, initiation, establishment, and maintenance of specific educational procedures. The contents will include specific procedures for scheduling, office management, pupil control, co-curricular program design and management, curricular program design an management, communications, information systems, and budgeting. Activities will include lecture, discussion, visitation, simulated and actual applications, and selected practicum experiences.

EDN 562. Automation in Administrative and Instructional Practices (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge, skills, and abilities required for decision-making about automation of procedures and for design and implementation of automated procedures. The content will include a study of alternative procedures for automation, including computer applications and specific procedures for personnel accounting, scheduling, planning, instruction, and information management. Activities will include lecture, discussion, and a variety of simulated and real design, analysis, and production problems.

EDN 563. Educational Environments (3) Prerequisite: Education 502, 510, 511, or permission from department. Designed to develop knowledge, skills, and abilities in the analysis, design, and change of physical and social environments in education. Contents will include design, organization, control, and effects of physical and social

climates of schools and classrooms. Activities will include lecture, discussion, library research, and a variety of group and individual simulated and real design and analysis problems.

EDN 564. Politics and Policy-Making in Education (3) Designed to study the theories, processes, functions, limits, alternatives, goals, and consequences of policy-making as the primary objective of politics in education; evaluation and analysis of policy-making at the local, state and federal levels of education; nature and dynamics of policy-making by local and state school boards, state legislatures and the federal government.

EDN 570. Internship in Educational Administration (3) Designed to provide experience related to major aspects of the role of principal. Observation will be made of principals and assistant principals and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the principal's role in task areas such as staff development, supervision and evaluation, community relations and student development. Additional topics of investigation will include such administrative task areas as budget development, budget allocation, fiscal management, reporting and instructional scheduling. Students with experience in the role of principal or assistant principal may request waiver of this course requirement.

EDN 571. Internship in Educational Supervision (3) Designed to provide experiences related to major aspects of the role of supervisor. Observations will be made of supervisors and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the supervisor's role in task areas such as staff development, teacher relations, principle relations, and relations with outside consultants. Additional topics of investigation will include such supervisory task areas as program planning, curriculum review, budget development, budget allocations, fiscal management, and reporting. Students with experience in the role of supervisor may request waiver of this course requirement.

EDN 591. Independent Study (3) Prerequisite: Fifteen semester hours of graduate credit and permission of instructor. Intensive study of topic in the student's area of specialization.

EDN 595. Special Topics in Education (1-4) Seminars of varying duration and credit may be arranged for the study of special topics relevant to student needs not served by established graduate courses. Seminars of this nature may be offered only upon approval of the Director of Graduate Studies. A maximum of six semester credit hours may be counted toward degree requirements.

EDN 599. Thesis in Education (1-6) Prerequisite: Education 523, at least 18 additional hours toward master's degree, and permission of instructor. Intensive study of topic selected by student and approval by thesis committee. Includes definition of problem, review of related literature, application of appropriate methodology, and interpretation of results and conclusions. Oral presentation and defense of thesis required.

MASTER OF SCIENCE IN MARINE BIOLOGY

The University of North Carolina at Wilmington offers a program of study leading to a Master of Science degree in Marine Biology. The program is designed either (1) to prepare students for further graduate work leading to a Ph.D. degree elsewhere; (2) to prepare students as professional biologists or as managers of coastal and marine resources, trained to deal with contemporary problems in the environment; or (3) to upgrade the effectiveness of classroom instruction by public school teachers. The curriculum of the program allows students to elect one of three tracks: Marine Biology, Biological Oceanography, or Coastal Biology. Within each track, a student and his/her faculty committee have the necessary latitude to develop a plan of study which will meet the particular needs of the individual.

Degree Requirements

1. Programs leading to the Master of Science degree require a minimum of thirty semester hours of graduate study. A maximum of 6 semester hours of credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to "B" or better. A minimum of 24 semester hours of graduate study must be completed in residence.
2. The student must demonstrate competency in a foreign language: French, German, Spanish, or Russian. A computer language, i.e. PL/1, FORTRAN, or BASIC, may be substituted for the foreign language requirement upon the commitee's approval.
3. The student must successfully complete a qualifying examination consisting of two parts: a written comprehensive examination based upon prior course work, and a comprehensive oral examination administered by the committee within two weeks after the written examination.
4. Each student will present a thesis, based on original research, acceptable to the committee, prior to graduation.
5. Each student must complete an approved course of study within five years of the date of first registration for graduate study.

Requirements for the Marine Biology track:

A minimum of six hours from the following:

MBY 560	Estuarine Biology (3)
MBY 562	Coastal Ecosystems (3)
MBY 564	Biological Oceanography (3)
MBY 569	Advanced Oceanography (3)
	and:
MBY 501	Introduction to Scientific Research and Presentation (1)
MBY 593	Colloquium in Marine Biology (1)
MBY 595	Seminar in Marine Biology (1)
MBY 599	Thesis (3-6)

A minimum of 15 hours of electives of which at least 12 hours must be in biology courses; at least 3 hours must be chosen from each of the following categories: physiology, anatomy-morphology, developmental biology. No more than 3 credits of MBY 591 (Directed Independent Study) may be used.

Requirements for the Biological Oceanography track:

MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 564 Biological Oceanography (3)
MBY 569 Advanced Oceanography (3)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 596 Seminar at Sea (1)
MBY 599 Thesis (3-6)

A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Independent Study) may be used.

Requirements for the Coastal Biology track:

MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 560 Estuarine Biology (3)
MBY 562 Coastal Ecosystems (3)
MBY 592 Seminar at the Coast (1)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 599 Thesis (3-6)

A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Indpendent Study) may be used.

Deficiencies will be ascertained by the student's committee and will be remedied prior to graduation.

GRADUATE PROGRAM IN MARINE BIOLOGY

Course Descriptions

MBY 501. Introduction to Scientific Research and Presentation (1) Scientific manuscript preparation and communication techniques: manuscript format, graphics, design of experiments, library use, and writing techniques. One lecture and one laboratory hour per week.

MBY 510. (Statistics 410) Applied Statistical Methods (3) Prerequisite: Credit in statistics. After a review of elementary statistics, the following major areas are studied: nonparametric methods, analysis of variance and experimental design and regression analysis. Three hours each week.

MBY 512. (Biology 410) Electron Microscopy and Cell Ultra Structure (3) Prerequisite: Course in cell physiology or permission of instructor. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and functon of cell organelles in plants and animals. Three hours per week.

MBY 512-51. (Biology 410-51) Electron Microscopy Laboratory (1) Corequisite: Marine Biology 512 and permission of instructor. Techniques for fixing, embedding and thin section of tissue will be demonstrated. Students will prepare a material of choice for

observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours per week.

MBY 515. Membrane and Neurobiology (4) Prerequisite: Course in physiology or permission of instructor. Introduction to the principles of diffusion, osmosis, active transport and membrane biophysics with emphasis on cellular and whole animal ionic and osmotic regulation, and neurophysiology. Emphasis will be placed on marine invertebrates and vertebrates. The laboratory will give experience in ion measurements, radioisotope handling, flux studies, and neurophysiological techniques. Three lecture and three laboratory hours each week.

MBY 525. Marine Microbiology (4) Prerequisite: Course in microbiology or permission of instructor. Concepts of structure and function of microbes, nutrition, metabolism adaptation and genetics as related to the marine environment. The laboratory will center on techniques of studying microbes and their ecology, and the systematics of important micro-organisms. Three lecture and three laboratory hours each week.

MBY 530. Invertebrate Evolution (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. Critical analysis of current theories on the origin of the invertebrates and on origins of invertebrate phyla. The course will include a review of the historical development of evolutionary thought concerning invertebrate phylogeny, both from a neontological and palenontological viewpoint. Relevant data from modern studies in embryology, larval development, comparative morphology, functional morphology and serology will be stressed. Each student will be required to prepare a summary paper on the status of knowledge for a selected invertebrate group. Three hours each week.

MBY 532. (Geography 432) Biogeography (3) Prerequisite: Credit in physical geography or in geology or consent of the instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic and evolutionary events in the past. Three hours each week.

MBY 534. (Biology 466) Advanced Ecology (4) Prerequisite: Ecology. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

MBY 535. (Biology 435) Molecular Genetics (3) Prerequisite: A course in genetics, biochemistry or cell physiology. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein systhesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity synthesis and function. Three lecture hours each week.

MBY 537. (Biology 457) Ichthyology (4) The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

MBY 538. Cytogenetic Methodology (2) A laboratory course introducing the techniques necessary to study and analyze the chromosomes of a variety of organisms including plants and animals. One four-hour laboratory each week.

MBY 540. (Biology 465) Biochemistry (3) Prerequisite: Organic Chemistry. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids;. enzyme kinetics; bio-energetics, regulatory mechanisms. Three hours each week.

MBY 542. (Biology 467) Biochemistry Methodology (3) Prerequisite or corequisite: Biochemistry and consent of instructor. A laboratory course dealing with the techniques and methodology of modern biological chemistry. Topics include various types of chromatography and isolation and assay procedures for varous biological molecules. One lecture and five laboratory hours each week.

MBY 544. (Biology 440) Developmental Biology (4) Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environnmental control of develoment. Plant and animal systems studies in modern research literature will be discussed. Three lecture and three laboratory hours each week.

MBY 545. (Biology 445) Marine Physiology (4) Introduction to physiological systems characteristic of marine vertebrates and invertebrates. Emphasis is placed on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion and movement. Three lecture and three laboratory hours each week.

MBY 550. Vertebrate Systematics (4) Prerequisites: Two of the following: Ornithology, Herpetology, Mammalogy, Ichthyology. A detailed study of the processes of speciation in the vertebrates, including the theoretical and pragmatic approaches. Nomenclatorial procedures will be discussed. Three lecture and three laboratory hours each week.

MBY 551. Advanced Vertebrate Biology (2) Prerequisite: Permission of instructor. Individualized instruction in the identification, classification, and habitats of the terrestrial vertebrates of the coastal zone. This course will emphasize field methodologies and is designed to fill gaps in each student's knowledge of the classes of terrestrial vertebrates. Four laboratory hours each week.

MBY 552. (Biology 462) Deep Sea Biology (3) The biology of animals inhabiting the deep sea envirnoment off North Carolina. Emphasizes faunal zonation, abyssal zoogeography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea. Three hours each week.

MBY 553. Natural History of Intertidal Organisms (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. A study of the strategies adopted by major invertebrate groups inhabiting the itertidal zone. Field trips will permit the student to observe and identify relationships between vertical ranges of intertidal organisms and local biological and physical parameters that define zonation. An individual or group project on some aspect of recruitment, site preference, succession, or competition in intertidal populations will be required. Two lecture hours and field work.

MBY 554. (Biology 452) Mammalogy (4) A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptations, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lectures and three laboratory hours each week.

MBY 555. Methods in Sedimentology (4) Prerequisite: Introductory course in geology or permission of instructor. An introduction to the most important analytical techniques and research procedures that are currently used for studying sediments. Techniques included are: size analysis; grain shape; grain surface texture; textural analysis; compositional analysis; and chemical analysis. Two lectures and two-hour laboratories each week.

MBY 556. (Biology 456) Ornithology (4) An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

MBY 557. (Biology 454) Herpetology (4) A study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

MBY 558. Biology of Recreational and Commercial Fishes (3) Prerequisite: Basic course in ichthyology or permission of the instructor. Topics will broaden the student's knowledge of management of economically and socially important aquatic resources through discussions on ecology and fisheries oceanography, aquaculture, fish diseases and contemporary research. The emphasis will be upon fishes, but the course will include information on shrimp, molluscs, whales and other marine species. Two lecture and three laboratory periods each week.

MBY 559. (Biology 481) Marine Invertebrate Zoology (4) A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

MBY 560. Estuarine Biology (3) Prerequisite: Course in general ecology or permission of instructor. A study of the physical, chemical and biological interactions of the estuarine area: The effect of currents and circulation upon biological and chemical gradients; the role of nutrients in organic cycles, primary and secondary productivity and standing crops; energy transfer, stability and stresses in marine communities; pollution indicator species and endangered species in the estuarine environment. A special emphasis will be placed upon analytical techniques in gathering and processing estuarine data and in evaluation of local estuaries with respect to contemporary management planning. Two lecture and three laboratory hours each week.

MBY 561. Barrier Island Ecology (3) Prerequisite: Course in general ecology or permission of instructor. A survey of the dune forest and tidal marsh flora and vegetation. Topics will include descriptive, physiological and applied aspects of barrier island plants. Special topics include dune environment, halophytes, salt-spray effects, marsh energetics and nutrient cycling. Quantitative techniques will be used in characterization of island communities. Two lecture and three laboratory hours each week.

MBY 562. Coastal Ecosystems (3) Prerequisite: Course in general ecology or permission of instructor. Ecology of the major plant communities on the Coastal Plain. Systematics, structure and functions of the coastal community will be emphasized. Biotic and environmental sampling and comparison techniques will be emphasized. Two lecture and four laboratory hours each week.

MBY 563. Physical Oceanography (4) Dynamics and physics of the ocean with emphases on the physical properties of sea water, flow dynamics, and circulation. The laboratory will emphasize instrumentation, data collection, and analyses of marine dynamics. Three lecture and three laboratory hours each week.

MBY 564. Biological Oceanography (3) Encompasses a spectrum of special topics on factors that control the distribution patterns of marine organisms. The topics include: identification and evolution of marine biomes; seasonal, temporal and spatial trends in temperate marine environment; tropical vs polar marine productivity; temperature of water masses and biological implications with emphasis on gulf stream biology; pelagic and benthic community structure; marine food chain and trophodynamics; models of energy flow and budgets; biology of outer continental shelf; recruitment mechanism as influenced by natural and man-made causes. Special emphasis will be placed on methods of data gathering and theories behind advanced biological oceanographic techniques. Each student will specialize in a selected topic and will present a report at the end of the term. Three hours each week.

MBY 565. (Biology 458) Fisheries Biology (4) Prerequisite: Ichthyology, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

MBY 566. Behavioral Ecology of Reef Fishes (3) Prerequisite: Course in ichthyology or permission of instructor. An ecological and ethological approach to the study of reef fish biology. Current theories and problems dealing with the ecological niche, competition, social systems, and population biology. Two lecture and three laboratory hours each week.

MBY 567. (Biology 460) Limnology (4) Prerequisite: A laboratory course in inorganic chemistry or permission of instructor. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

MBY 569. Advanced Oceanography (3) Prerequisite: An introductory descriptive oceanography course. This course will consider mechanisms and dynamics of the ocean: the physical processes propelling oceanic currents, the reception and transmission of energy, and its influence upon living systems, statics and dynamics of waves, chemical distribution in the sea and their influence upon living marine organisms, dynamics of fertility and productivity in the marine environment. Two lecture and three laboratory hours each week.

MBY 570. (Biology 468) Planktonology (4) Prerequisite: Invertebrate Zoology or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

MBY 572. (Biology 472) Marine Phycology (4) An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

MBY 574. (Biology 475) Plant Taxonomy (4) Prerequisite: Introductory Botany. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of Southeastern North Carolina. Two lecture and four laboratory hours each week.

MBY 575. Taxonomy of Aquatic and Wetland Plants (3) Prerequisite: Introductory Taxonomy or consent of instructor. Discussion, collection, and identification of vascular plants found in the aquatic and wetland habitats of coastal North Carolina. Extensive field work and individualized instruction in collection and identification techniques. Two lecture and three laboratory hours each week.

MBY 576. (Biology 474) Comparative Morphology of Vascular Plants (4) A detailed study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

MBY 577. Marine and Estuarine Mycology (3) Prerequisite: Mycology or permission of instructor. An in-depth survey of the mycoflora of oceanic and estuarine waters with emphasis on collecting and culturing techniques. An in-depth treatment of taxonomy and ecology of important fungal groups will also be given. Two lecture and three laboratory hours each week.

MBY 580. (Biology 480) Field Studies in Biology (1-6) A research experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

MBY 585. (Biology 485) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

MBY 588. (Chemistry 476) Chemical Analysis of Natural Waters (2) Prerequisite: Permission of instructor. Evaluation of common chemical methods for the analysis of complex natural waters is included. Appropriate use of these methods is demonstrated. Analyses studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended materials, and dissolved metals. One lecture and three laboratory hours each week.

MBY 589. (Chemistry 475) Chemical Oceanography (3) Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week.

MBY 591. Directed Independent Study (3)

MBY 592. Seminar at the Coast (1) Participation in planning and conducting a series of field exercies in the coastal zone of North Carolina.

MBY 593. Colloquium in Marine Biology (1) Investigation and discussion of selected topics and current issues through the interaction of students, faculty, and expert guest lecturers.

MBY 595. Seminar in Marine Biology (1) Discussion of selected topics in marine biology.

MBY 596. Seminar at Sea (1) Participation in pre-cruise planning and a biological oceanographic cruise to obtain practical knowledge on methods of sampling.

MBY 599. Thesis (1-6)

FACULTY

FACULTY

Sheila Anne Adams, *Associate Professor of Management,* B.S., M.B.A., University of Nevada-Reno; Ph.D., University of Washington.

Louis Henry Adcock, *Professor of Chemistry,* B.S., M.A., Duke University; Ph.D., Louisiana State University.

Syed Shahzad Ahmad, *Assistant Professor of Political Science,* B.A., M.A., Aligarh University; Ph.D., University of Tennessee.

Alan Zachary Aiches, *Adjunct Lecturer in Creative Arts,* B.A., University of California.

William Franklin Ainsley, Jr., *Associate Professor of Georgraphy,* A.B., M.A., University of North Carolina at Chapel Hill; M.Div., Southeastern Baptist Theological Seminary; Ph.D., University of North Carolina at Chapel Hill.

David Bruce Allen, *Lecturer in Physical Education,* B.S., M.S., Springfield College.

F. Dean Allen, *Assistant Professor in Recreation,* B.S., M.A., Brigham Young University; Ph.D., Texas A & M University.

Thomas Earl Allen, *Associate Professor of History,* B.A., Moravian College; M.Div., Moravian Theological Seminary; M.A., University of North Carolina at Chapel Hill.

Ferenc Altrichter, *Assistant Professor of Philosophy and Religion,* B.A., B.S., M.A., M.S., Eotvos Lorand University of Budapest; Ph.D., Hungarian Academy of Sciences.

Arvid Asa Anderson, *Associate Professor of Marketing,* B.B.A., M.B.A., Ph.D., The University of Texas at Austin.

Elizabeth T. Anderson, *Adjunct Lecturer in Medical Technology,* B.A., University of North Carolina at Greensboro; B.S., Bowman-Gray School of Medical Technology; MT (ASCP).

John Michael Anderson, *Associate Professor of Management,* B.S., United States Naval Academy; A.B., University of North Carolina at Wilmington; M.B.A., East Carolina University; Ph.D., North Carolina State University.

James Milton Applefield, *Assistant Professor of Education,* B.A., University of North Carolina at Chapel Hill; M.A., Emory University; M.Ed., University of Georgia; Ph.D., Georgia State University.

Pauline F. Applefield, *Assistant Professor of Psychology,* B.A., Bethany College; M.S., Ph.D., Pennsylvania State University.

Robert W. Appleton, *Associate Professor of Accountancy,* B.S., Belmont College; M.B.A., Memphis State University; CPA.

Joseph C. Awkard, Jr., *Professor of Psychology,* B.A., M.A., Virginia State College; Ed.D., University of Virginia.

Saul Bachner, *Professor of Education,* B.A., M.Ed., Ph.D., Wayne State University.

Ravija Badarinathi, *Assistant Professor of Management,* B.S., M.S., Allahabad University; Ph.D., University of Georgia.

Timothy Alan Ballard, *Assistant Professor of Biology,* B.S., Appalachian State University; Ph.D., Bowman Gray School of Medicine of Wake Forest University.

Paz Irabagon Bartolome, *Professor of Education,* B.S., E. Ed., Philippine Normal; M.Ed., Miami University; Ph.D., Ohio State University.

Donna Gregg Basch, *Adjunct Lecturer in Medical Technology,* B.S., Carson Newman College; MT (ASCP) SC, Bowman Gray School of Medical Technology.

Edward A. Becker, *Associate Professor of Accountancy,* B.S., Temple University; M.B.A., Drexel University; Ph.D., Pennsylvania State University; CPA; CMA.

James Rush Beeler, *Professor of French,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Mary Dixon Bellamy, *Assistant Professor of Spanish,* A.B., East Carolina Univeristy; M.A., University of North Carolina at Chapel Hill; graduate study, Universidad de Valladolid.

Kathleen Christine Berkeley, *Assistant Professor of History,* B.A., M.A., Ph.D., University of California, Los Angeles.

David Roy Berman, *Assistant Professor of Mathematical Sciences,* B.A., University of Texas at Austin; M.A., University of California at Berkeley; Ph.D., University of Texas at Austin.

Walter Clark Biggs, Jr., *Professor of Biology,* B.A., East Carolina University; M.S., Texas A & M University; Ph.D., North Carolina State University.

Virginia Lee Bissenger, *Adjunct Lecturer in Medical Technology,* B.S., University of North Carolina at Wilmington; MT (ASCP).

Delilah Bowen Blanks, *Assistant Professor of Social Work,* A.B., Shaw University; A.B., East Carolina University; M.S.W., Ph.D., University of North Carolina at Chapel Hill.

Frank Joseph Bongiorno, *Assistant Professor of Music.,* B.M., Ithaca College; M.M., North Texas State University; graduate study, Indiana University.

Michael Bradley, *Professor of Psychology,* B.A., M.Ed., Ed.D., University of Georgia.

Ralph W. Brauer, *Professor of Marine Physiology,* A.B., Columbia University; M.Sc., Ph.D., University of Rochester.

William Jasper Brooks, *Associate Professor of Physical Education,* A.B., Atlantic Christian College; M.A., East Carolina University.

Jeffery L. Brown, *Assistant Professor of Mathematical Sciences,* B.S., M.A., Ph.D., University of Georgia.

Robert Tindall Brown, *Professor of Psychology,* A.B., Hamilton College; Ph.D., Yale University.

Thomas P. Brown, *Assistant Professor of Mathematical Sciences,* A.B., University of North Carolina at Chapel Hill; M.A., East Carolina University.

Katherine Ely Bruce, *Assistant Professor of Psychology,* B.A., Southwestern at Memphis; M.S., M.A., Ph.D., University of Georgia.

William A. Bryan, *Professor of Education,* B.S., Florida State University; M.S., Indiana University; Ed.D., University of Wyoming.

John B. Buescher, *Assistant Professor of Philosophy and Religion,* B.A., M.A., Ph.D., University of Virginia.

Thomas Joseph Burke, *Assistant Professor of Management,* A.B., Sacramento State College; M.B.A., University of Miami.

Grace M. Burton, *Associate Professor of Education,* A.B., Annhurst College; M.A., Ph.D., University of Connecticut.

Robert H. Byington, *Professor of English and Folklore,* A.B., Pennsylvania State University; M.A., Lehigh University; Ph.D., University of Pennsylvania.

Charles L. Cahill, *Professor of Chemistry,* A.B., Oklahoma Baptist University; M.S., Ph.D., University of Oklahoma.

Lawrence Bruce Cahoon, *Assistant Professor of Biology,* B.S., Washington and Lee University; Ph.D., Duke University.

Denis G. Carter, *Associate Professor of Economics,* A.B., Boston College; Ph.D., University of Florida.

Frank L. Chapman, *Lecturer in Physical Education,* B.S., M.S., Florida State University.

Marilyn K. Christoph, *Lecturer in Physical Education,* B.S., Appalachian State University; M.S., North Carolina A & T State University.

Irvin Garrett Clator, *Associate Professor of Physics,* B.S., M.S., Ph.D., West Virginia University.

Catherine Cecilia Cleare, *Assistant Professor of Education,* B.A., Hunter College, CUNY; M.A.T., Bowling Green State University; Ph.D., University of Maryland.

William James Cleary, *Professor of Geology,* A.B., Southern Illinois University; M.A., Duke University; Ph.D., University of South Carolina.

John P. Clifford, *Associate Professor of English,* B.A., St. Francis College; M.A., Ph.D., New York University.

James Glenn Collier, Jr., *Associate Professor of English,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Harry Allen Comeskey, *Assistant Professor of Finance,* B.S., United States Military Academy; M.B.A., D.B.A., University of Colorado.

Ann Louise Conner, *Associate Professor of Art,* B.A., Salem College; Special Studies in Art, Salem-Hofstra University, Asolo, Italy; M.A.C.T., M.F.A., University of North Carolina at Chapel Hill.

Ronald E. Copley, *Associate Professor of Finance,* B.A., M.B.A., Old Dominion University; Ph.D., University of South Carolina.

Joanne King Corbett, *Professor of English,* A.B., Coker College; M.A., Ph.D., University of Montreal.

Thaddeus G. Dankel, Jr., *Professor of Mathematical Sciences,* B.S., Duke University; M.A., Ph.D., Princeton University.

Fred Blount Davenport, Jr., *Assistant Professor of Business Law,* B.A., M.B.A., J.D., University of North Carolina at Chapel Hill.

Brian F. Davis, *Assistant Professor of Physics,* B.S., Bowling Green State University; Ph.D., North Carolina State University.

Richard Ryder Deas, *Professor of Music,* B.F.A., University of New Mexico, B.S., M.S., Juilliard School of Music; Ed.D., Columbia University.

Howard T. DeHaven, *Adjunct Professor of Medical Technology,* B.S., Murray State University; M.D., University of Louisville.

Richard M. Dillaman, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.A., University of Virginia; Ph.D., University of South Carolina.

James C. Dixon, *Professor of Political Science,* A.B., M.A., Marshall University; Ph.D., Emory University.

Richard David Dixon, *Associate Professor of Sociology,* B.A., University of Connecticut; M.A., Marshall University; Ph.D., Emory University.

James Allen Dockal, *Assistant Professor of Geology,* B.S., M.S., Iowa State University; Ph.D., University of Iowa.

Diane Marie Beaudoin Dodd, *Assistant Professor of Biology,* B.A., Agnes Scott College; M.S., M.Phil., Ph.D., Yale University.

Charles Brooks Dodson, *Professor of English,* B.A., DePauw University; M.A., Indiana University; Ph.D., University of Nebraska.

Calvin L. Doss, *Associate Professor of Education,* B.S., Berry College; M.Ed., University of Gerogia; Ph.D., University of North Carolina at Chapel Hill.

Joseph B. Dudley, *Adjunct Professor of Medical Technology,* B.S., Davidson College; M.D., University of Pennsylvania.

Carolyn S. Dunn, *Associate Professor of Biology,* B.S., M.A., University of Louisville; Ph.D., Ohio State University.

Rodney S. Earle, *Assistant Professor of Education,* Dip. T., Kelvin Grove Teachers College; B.A., M.Ed., Brigham Young University; Ph.D., Indiana University.

Charles L. Earney, *Assistant Professor of Accountancy,* B.B.A., University of Wisconsin-Eau Claire; M.B.A., University of Wisconsin-Madison; CPA.

Marc R. Ellington, *Lecturer in Physical Education,* B.S., M.Ed., Springfield College.

Normal E. Ellis, *Associate Professor of Education,* B.S., M.A., Ball State University; Ph.D., University of North Carolina at Chapel Hill.

Patricia Carol Ellis, *Assistant Professor of English,* B.A., M.A., Ph.D., University of Georgia.

William Lester Etheridge, *Assistant Professor of Mathmetical Sciences,* B.S., M.S., University of Illinois; Ph.D., Purdue University.

John F. Evans, *Lecturer in English,* B.S. Ed., Dr. Martin Luther College; M.A.T., Saginaw Valley State College; further graduate work, Breadloaf School of English.

Wyman Glen Fair, *Associate Professor of Mathmetical Sciences,* B.A., University of Missouri, Kansas City; M.A., University of Missouri, Columbia; Ph.D., University of Kansas.

Claude Herman Farrell, III, *Professor of Economics,* B.S., M.E., Ph.D., North Carolina State University.

Gary L. Faulkner, *Professor of Sociology,* B.A., M.A., Ball State University; Ph.D., University of Georgia.

David D. Felt, *Assistant Professor and Director of ROTC,* B.A., Dartmouth College; M.Ed., Georgia State University.

Carole K. Fink, *Professor of History,* B.A., Bard College; M.A., Ph.D., Yale University.

Anne Mackie Fitzgibbon, *Assistant Professor of Drama,* A.B., M.A., University of North Carolina at Chapel Hill.

Timothy F. Fitzpatrick, *Instructor in Military Science,* B.A., DePaul University.

Charles Fort, *Assistant Professor of English,* B.A., Sienna College; M.F.A., Bowling Green State University.

Isabell L. Foushee, *Assistant Professor of English,* B.S., M.A., East Carolina University.

Dargan Frierson, Jr., *Associate Professor of Mathematical Sciences,* B.A., M.A., University of North Carolina at Greensboro; Ph.D., University of Arizona.

Charles McGhee Fugler, *Professor of Biology,* B.S., Tulane University; M.S., Louisiana State University; Ph.D., Auburn University.

J. Mark Galizio, *Professor of Psychology,* B.A., Kent State University; M.S., Ph.D., University of Wisconsin-Milwaukee.

John M. Garris, *Assistant Professor of Management,* B.A., University of North Carolina at Chapel Hill; M.S., Ph.D., Clemson University.

Mary L. Gendernalik, *Assistant Professor of Education,* B.A., Michigan State University; M.A.T., Ph.D., Wayne State University.

Robert Yesudian George, *Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.Sc., Madras Christian College; M.Sc., Presidency College; Ph.D., University of Madras.

Melvin Lee Gibson, *Lecturer in Physical Education,* B.S., M.A., Western Carolina University.

Howard Lee Gillen, *Adjunct Professor of Physiology,* B.S., M.D., University of Illinois.

Nancy Gilliland, *Assistant Professor of Nursing,* B.S.N., University of North Carolina at Chapel Hill; M.N., Emory University.

Nancy J. Gladwell, *Assistant Professor of Recreation,* B.S.R., M.S.P.E., West Virginia University; Re.D., Indiana University.

Paul Allen Gray, Jr., *Assistant Professor of Nursing and Director RN ACCESS Program;* Diploma in Nursing, Mercy Hospital School of Nursing; B.S.N., North Carolina Central University; A.B., M.S.N., Ph.D., University of North Carolina at Chapel Hill.

Drema S. Greer, *Lecturer in Physical Education,* B.S., Clemson University; M.A., Tennessee Tech University.

Barbara Ann Greim, *Associate Professor of Mathmetical Sciences,* B.S., Ursinus College; Ph.D., University of North Carolina at Chapel Hill.

Kenneth Rufus Gurganus, *Assistant Professor of Mathmetical Sciences;* B.S., M.S., Ph.D., University of North Carolina at Chapel Hill.

Bobby Lee Guthrie, *Lecturer in Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill.

Courtney T. Hackney, *Associate Professor of Biology,* B.S., University of South Alabama; M.S., Emory University; Ph.D., Mississippi State Unviversity.

John Hamilton Haley, *Assistant Professor of History,* A.B., Virginia State College; M.A., Old Dominion University; Ph.D., University of North Carolina at Chapel Hill.

Jack Charles Hall, *Lecturer in Geology,* B.S., Grand Valley State College; M.S., University of North Carolina at Chapel Hill.

William Woodward Hall, Jr., *Associate Professor of Economics,* B.A., Presbyterian College; M.S., Ph.D., Clemson University.

Arlene Anderson Hanerfeld, *Assistant Professor and Documents Librarian,* B.S. University of North Carolina at Greensboro; M.S.L.S. University of North Carolina at Chapel Hill.

Roy Eugene Harkin, *Professor of Education,* A.B., M.A., Ball State University; Ph.D., Claremont Graduate School.

Stephen Coale Harper, *Professor of Management,* B.B.A., University of New Mexico; M.B.A., University of Arizona; D.B.A., Arizona State University.

William Burleigh Harris, *Professor of Geology,* B.S., Campbell College; M.S., West Virginia University; Ph.D., University of North Carolina at Chapel Hill.

Paul Graham Hatcher, *Assistant Professor of Health and Physical Education,* B.A., Belmont College; M.S., Western Kentucky University; Ph.D., George Peabody College for Teachers.

Andrew E. Hayes, *Associate Professor of Education,* B.S., M.A., Louisiana Polytechnic Institute; Ed.D., University of Georgia.

Hathia A. Hayes, *Associate Professor of Education,* B.S., M.S., Louisiana Polytechnic Institute; Ed.D., University of Georgia.

Timothy W. Haywood, *Associate Professor of Physics,* B.S., University of Georgia; Ph.D., University of North Carolina at Chapel Hill.

Robert Taylor Herbst, *Distinguished Visiting Professor of Mathmatical Sciences,* B.A., Duke University; M.S., North Carolina State University; Ph.D., Duke University.

Hildelisa Caridad Hernandez, *Associate Professor of Physics,* Sc.D., University of Havana.

Vicente Nestor Hernandez, *Associate Professor of Mathmatical Sciences,* Sc.D., University of Havana.

Sue Ann Cody Hiatt, *Assistant Professor and Special Collections Librarian,* B.S., Ball State University; M.L.S., Indiana University.

Joe Eugene Hickman, *Assistant Professor of Music,* B.M., West Virginia University; M.M., D.M., Indiana University.

Robert Price Higgins, *Adjunct Research Professor in Biological Oceanography,* B.A., M.A., University of Colorado; Ph.D., Duke University.

Roger Post Hill, *Professor of Economics and Finance,* B.S., North Carolina State University; M.S., Oklahoma State University; Ph.D., Michigan State University; post-doctoral study, University of North Carolina at Chapel Hill.

Constance M. Hobbs, *Assistant Professor of Art,* B.F.A., University of North Carolina at Chapel Hill; M.F.A., Boston School of the Museum of Fine Arts and Tufts University.

Nancy Lucinda Hollifield, *Assistant Professor of Physical Education,* B.A., Furman University; M.Ed., University of Georgia; Ph.D., Louisiana State University.

Clark W. Holtzman, III, *Lecturer in English,* A.B., M.A., Indiana University; Ph.D., St. Louis University.

Earl D. Honeycutt, *Lecturer in Marketing,* B.S., M.B.A., Appalachian State University; M.S., Chapman College; Ph.D. candidate, University of Georgia.

Larry R. Honeycutt, *Lecturer in Physical Education,* B.A., University of North Carolina at Wilmington; M.A.T., University of North Carolina at Chapel Hill.

Laura A. Honeycutt, *Lecturer in Marketing,* B.S., Bucknell University; M.B.A., Appalachian State University.

Frederick M. Hornack, *Professor of Chemistry,* B.S., Lowell Technological Institute; Ph.D., Florida State University.

Paul Edward Hosier, *Professor of Biology,* B.S., New Paltz State University (New York); M.A., University of Massachusetts; Ph.D., Duke University.

Eugene William Huguelet, *Associate Professor and Director of Library Sciences,* B.A., University of North Carolina at Chapel Hill; M.A., East Carolina University; M.L.S., Emory University.

Harold G. Hulon, *Professor of Education,* A.B., M.Ed., Ph.D., University of North Carolina at Chapel Hill.

John R. Huntsman, *Assistant Professor of Geology,* B.S., Mount Union College; M.A., Ph.D., Bryn Mawr College.

Albert Donald Hyers, *Assistant Professor of Geography,* B.A., Elmhurst College; M.A., Western Michigan University; Ph.D., Arizona State University.

Susan Mills Isen, *Assistant Professor of Philosophy and Religion,* B.A., Reed College; Ph.D., Indiana University.

Lee Anderson Jackson, Jr., *Professor of Psychology,* B.A., Hampden-Sydney College; M.A., Ph.D., University of Florida.

Louise Jackson, *Assistant Professor and Serials Librarian,* Winthrop College; M.L.S., Emory University.

Paul Emil Jambor, *Associate Professor of Mathmetical Sciences,* M.A., Charles University, Prague; M.A., Columbia University; Ph.D., Charles University, Prague.

D. Ronald Johnson, *Assistant Professor and Circulation Librarian,* A.B., East Carolina University; M.L.S., George Peabody College.

James D. Johnson, *Assistant Professor of Psychology,* B.A., North Carolina Agricultural & Technical State University; Ph.D., Indiana University.

W. Lee Johnston, *Associate Professor of Political Science,* B.A., University of North Carolina at Chapel Hill; M.S., Ph.D., University of Maryland.

Lloyd P. Jones, *Assistant Professor of Political Science,* B.A., Southern Illinois University; M.S., Northeastern University; Ph.D., Northern Illinois University.

Noel K. Jones, *Associate Professor of Education,* B.A., Harvard College; M.A., Stanford University; Ph.D., Cornell University.

Rebecca B. Jones, *Lecturer in Chemistry,* B.A., Agnes Scott College; M.S., Brown University.

Donald F. Kapraun, *Professor of Biology,* B.S., Eastern Illinois University; Ph.D., University of Texas at Austin.

John K. Karlot, *Associate Professor of Mathmetical Sciences,* B.A., State University of New York at Oswego; M.A., Ph.D., University of Colorado; M.S., State University of New York at Stonybrook.

Norman R. Kaylor, *Professor of Accountancy,* B.S., Middle Tennessee State University; M.B.A., Georgia State University; Ph.D., University of Mississippi.

David Stevenson Kechley, *Assistant Professor of Music,* B.A., B.M., M.M., University of Washington; D.M.A., Cleveland Institute of Music.

Jeanne Kemppainen, *Assistant Professor of Nursing,* B.S.N., Wayne State University; M.S.N., East Carolina University.

Anne S. Kendrick, *Assistant Professor of Biology,* B.A., Longwood College; B.S., M.S., Medical College of Virginia; MT (ASCP).

Bruce L. Kinzer, *Assistant Professor of History,* B.A., Eastern Michigan University; M.A., University of Michigan; Ph.D., University of Toronto.

Joseph M. Kishton, *Associate Professor of Psychology,* B.S., M.A., Ph.D., Ohio State University.

Kathleen Helena Kowal, *Associate Professor of Psychology,* B.S., University of Maryland; M.A., Ph.D., Columbia University.

Randy L. LaGrange, *Assistant Professor of Criminal Justice,* B.S., M.A., University of Toledo; Ph.D., Rutgers University.

Caryl Sue Lamb, *Associate Professor of Psychology,* B.A., M.S.W., University of North Carolina at Chapel Hill; Ph.D., University of Iowa.

Calvin L. Lane, *Lecturer in Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill.

James A. Lanier, III, *Adjunct Associate Professor of Biology,* B.A., University of Virginia; M.A., Ph.D., College of William and Mary.

Louis J. LaNunziata, Jr., *Assistant Professor of Education,* B.S., East Stroudsburg State College; M.Ed., Bloomsburg State College; Ph.D., The Ohio State University.

Mary Ellen Lawrence, *Lecturer and Assistant Catalogue Librarian,* B.S., University of Tennessee; M.L.S., University of North Carolina at Greensboro.

Richard A. Laws, *Assistant Professor of Geology,* B.A., University of North Carolina at Wilmington; M.A., University of California, Berkeley; Ph.D., University of California, Berkeley.

Luther Drew Lawson, *Assistant Professor of Economics,* B.S., M.S., Indiana State University; Ph.D., University of Tennessee.

Michael H. Leaken, *Adjunct Professor of Medical Technology,* B.A., Loyola University; M.D., University of Maryland.

Stephen D. LeQuire, *Assistant Professor of Art,* B.A., M.F.A., East Tennessee State University.

Patricia Barker Lerch, *Assistant Professor of Anthropology,* B.A., Cleveland State University; M.A., Ph.D., Ohio State University.

Diane E. Levy, *Associate Professor of Sociology,* A.B., M.A., Ph.D., Temple University.

Jack B. Levy, *Professor of Chemistry,* A.B., Duke University; M.S., Ph.D., North Carolina State University.

Charles A. Lewis, *Associate Professor of Recreation,* B.S., New York State Maritime College; M.S., Hofstra University; M.A., C. W. Post College; Ph.D., New York University.

David O. Lewis, *Assistant Professor of Business Law,* B.S., The University of North Carolina at Wilmington; J.D., The University of North Carolina at Chapel Hill.

Judith Bledsoe Lewis, *Assistant Professor of Physical Education,* B.S., East Carolina University; M.S., University of North Carolina at Chapel Hill.

David Gregory Lindquist, *Associate Professor of Biology,* B.A., University of California-Los Angeles; M.A., California State University-Hayward; Ph.D., University of Arizona.

Thomas Corielli Loftfield, *Associate Professor of Anthroplogy,* B.A., William and Mary; M.A., Ph.D., University of North Carolina at Chapel Hill.

Richard Long, *Lecturer in English,* A.B., University of North Carolina at Wilmington; M.A., candidate for the doctor's degree, East Texas University.

Jane M. Lowe, *Lecturer in Nursing,* B.S. in Nursing, University of North Carolina at Chapel Hill.

William F. Lowe, *Assistant Professor of German,* A.B., M.A., University of North Carolina at Chapel Hill; candidate for the doctor's degree, North Carolina State University.

Roger Coyle Lowery, *Associate Professor of Political Science,* B.A., M.A., Southern Illinois University; Ph.D., Washington University (St. Louis).

Gabriel G. Lugo, *Assistant Professor of Mathematical Sciences,* B.A., M.A., Ph.D., University of California, Berkeley.

Carl Victor Lundeen, *Associate Professor of Biology,* A.B., University of North Carolina at Chapel Hill; Ph.D., Rockefeller University.

Thomas R. Lupton, *Assistant Professor of Mathematical Sciences,* B.S., M.A., East Carolina University; graduate study, Texas A & M University.

Thomas G. MacLennan, *Associate Professor of English,* B.A., M.A., State University College at Buffalo; Ph.D., State University of New York at Buffalo.

Robert Dale McCall, *Associate Professor of Anthropology and Research Associate at the Institute for Marine Biomedical Research,* B.S., M.S., Florida State University; Ph.D., Case Western Reserve University.

Thomas Culbreth McCall, *Assistant Professor of English,* B.A., M.Ed., University of North Carolina at Chapel Hill.

James G. McCormick, *Adjunct Professor of Physiology,* B.S., Bucknell University; Ph.D., Princeton University.

Ralph C. McCoy, *Adjunct Professor of Medical Technology,* B.A., M.D., Emory University.

Anne Bowden McCrary, *Professor of Biology,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

James Kevin McGowan, *Professor of Philosophy and Religion,* A.B., Mary Immaculate College; Ph.L., The Catholic University of America; Ph.D., University of Louvain.

Phillip McGuire, *Associate Professor of History,* B.S., Bishop College; M.A., Southern Methodist University; Ph.D., Howard University.

Marjorie Lynn McInerney, *Assistant Professor of Management,* B.S., University of Akron; M.B.A., Marshall University; Ph.D., Ohio State University.

Diane L. McKinstry, *Lecturer in Psychology,* B.S., Fordham University; Ph.D., University of Minnesota.

Harry C. McLamb, *Assistant Professor of Music,* B.M.E., East Carolina University; M.M., Southern Illinois University.

Melton A. McLaurin, *Professor of History,* B.S., M.A., East Carolina University; Ph.D., University of South Carolina.

Sandra C. McLaurin, *Assistant Professor of Mathematical Sciences,* B.S., M.A., East Carolina University; Ph.D., University of South Carolina.

Stephen J. McNamee, *Assistant Professor of Sociology,* A.B., Rutgers University; A.M., Ph.D., University of Illinois.

Helen Jones Majette, *Assistant Professor of Nursing,* B.S.N., University of North Carolina; M.A., Columbia University.

John J. Manock, *Professor of Chemistry,* B.S., Washington and Jefferson College; Ph.D., Ohio University.

Dorothy P. Marshall, *Lecturer in Management,* B.S., East Carolina University; graduate study, George Peabody College.

Ned Harold Martin, *Professor of Chemistry,* A.B., Denison University; Ph.D., Duke University.

Sandy Dwayne Martin, *Assistant Professor of Philosphy and Religion,* B.A., Tougaloo College; M.A., Ph.D., Columbia University & Union Theological Seminary.

Sherrill Virginia Martin, *Associate Professor of Music,* B.M., Samford University; M.M., University of Alabama; Ph.D., University of North Carolina at Chapel Hill.

Jane Mathew, *Assistant Professor of Music,* B.M., University of Nebraska-Lincoln; M.A., University of Iowa; M.M., Indiana University.

James Joseph Megivern, *Professor of Philosophy and Religion,* B.A., M.A., Mary Immaculate College; S.T.L., Th.D., University of Fribourg; S.S.L., Biblical Institute, Rome.

James Francis Merritt, *Associate Professor of Biology,* B.S., M.A., East Carolina University; Ph.D., North Carolina State University.

Ellen Pletcher Metzer, *Assistant Professor of Geology,* B.S., University of New Orleans; M.S., Ph.D., Syracuse University.

Marcee J. Meyers, *Associate Professor of Education,* B.S., Syracuse University; M.Ed., American University; Ph.D., University of South Florida.

Terry Lynn Middleswarth, *Lecturer in Physical Education,* B.S., M.Ed., East Central State College; M.S., Oklahoma University; graduate study, University of North Carolina at Chapel Hill.

Arthur W. Miller, *Assistant Professor of Physical Education,* B.A., Norwich University; M.Ed., University of Virginia; Ph.D., University of New Mexico.

David Keith Miller, *Professor of Physical Education,* B.S., Wake Forest University; M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Robert Kent Miller, Jr., *Associate Professor of Sociology,* A.B., Franklin and Marshall College; MA., Ph.D., Temple University.

Sybil K. Miller, *Assistant Professor of Chemistry,* B.S., Meredith College; Ph.D., North Carolina State University.

Joel J. Mintzes, *Associate Professor of Biology,* B.S., M.S., University of Illinois, Chicago; Ph.D., Northwestern University.

John E. Morgan, Jr., *Assistant Professor of Economics,* B.S., The College of William and Mary; M.S.I.M., Georgia Institute of Technology; Ph.D., The University of Georgia.

Thomas Vernon Moseley, *Professor of History,* B.A., East Carolina University; M.A., Ph.D., University of North Carolina at Chapel Hill.

Joann McFerran Mount, *Assistant Professor of Spanish,* B.A., University of Arkansas; M.A., Ph.D., University of Kentucky.

Richard Terry Mount, *Associate Professor of Spanish,* B.A., Vanderbilt University; M.A., University of North Carolina at Chapel Hill; Ph.D., University of Kentucky.

Richard H. Mullendore, *Lecturer in Education,* B.A., Bradley University; M.S., Southern Illinois University; Ph.D., Michigan State University.

Peter R. Mueller-Roemer, *Associate Professor of Mathematical Sciences,* Vordiplom, University of Mainz (Germany); M.A., University of North Carolina at Chapel Hill; Ph.D., University of Bielfeld (Germany).

John W. Myers, *Assistant Professor of Art,* B.A., Hobart College; M.A., University of Wisconsin, Madison; Ph.D., University of Delaware.

Lewis E. Nance, *Professor of Chemistry,* B.S., M.S., Clemson University; Ph.D., University of the Pacific.

James Harold Nelson, *Associate Professor of Mathematical Sciences,* B.E., M.S., Ph.D., Vanderbilt University.

Rolla Clayborne Nelson, *Assistant Professor of Physics,* B.S., M.A., University of North Carolina at Chapel Hill.

Darwin R. Newton, *Professor of Psychology,* B.A., Chadron State College; M.S., Ed.D., University of Northern Colorado.

Fletcher Ragland Norris, *Professor of Mathematical Sciences,* B.A., Vanderbilt University; M.A., Ph.D., George Peabody College; post doctoral study, Florida State University.

Edward Alexander Olszewski, Jr., *Associate Professor of Physics,* B.S., Worchester Polytechnic Institute; Ph.D., University of North Carolina at Chapel Hill.

Barbara Reilly Otto, *Lecturer in Nursing,* B.S., College of Our Lady of the Elms.,

William H. Overman, Jr., *Professor of Psychology,* B.A., Wake Forest University; M.S., Ph.D., The Pennsylvania State University.

David Emerson Padgett, *Associate Professor of Biology,* A.B., Duke University; M.S., Ph.D., Ohio State University.

Margaret Holt Parish, *Assistant Professor of English,* B.A., Elmira College; M.L.S., Simmons College; Ph.D., Michigan State University.

James F. Parnell, *Professor of Biology,* B.S., M.S., Ph.D., North Carolina State University.

Virginia C. Payne, *Assistant Professor of Nursing,* B.S.N., M.S.H.E., M.S.N., East Carolina University.

Elizabeth A. Pearsall, *Assistant Professor of English,* A.B., University of North Carolina at Greensboro; M.A., University of North Carolina at Chapel Hill.

Gina Camille Pelose, *Lecturer in Speech Communication,* B.A., North Carolina State University; M.A., University of South Florida; Candidate for the Doctor's Degree, University of Illinois-Urbana.

Carlos Alberto Perez, *Assistant Professor of Spanish,* A.B., Wake Forest University; M.A., Ph.D., University of North Carolina at Chapel Hill.

Cathy Bair Pittman, *Lecturer in Nursing,* B.S.N., University of Pittsburgh; Candidate for M.S.N. degree, East Carolina University.

Daniel Belk Plyler, *Professor of Biology,* A.B., Pfeiffer College; M.A., Ph.D., University of North Carolina at Chapel Hill.

Sylvia Knopp Polgar, *Associate Professor of Sociology,* B.S., M.A., Columbia University; MSW, Ph.D., University of North Carolina at Chapel Hill.

Antonio E. Puente, *Assistant Professor of Psychology,* B.A., University of Florida; Ph.D., University of Georgia.

Robert J. Rafalko, *Assistant Professor of Philosophy and Religion,* A.B., University of Scranton; M.A., Tufts University; Ph.D., Temple University.

Duncan P. Randall, *Professor of Geography,* A.B., University of Georgia; M.A., Northwestern University; Ph.D., University of North Carolina at Chapel Hill.

James H. Reeves, *Assistant Professor of Chemistry,* B.A., Ph.D., Northeastern University.

Edward J. Reilly, *Psychological Counselor and Lecturer in Psychology,* B.A., Hunter College of CUNY; M.Ed., Ed.S., Ph.D., University of Florida.

Patricia A. Rensma, *Assistant Professor of Philosophy and Religion,* B.A., M.A., Ph.D., Pennsylvania State University.

J. Paul Reynolds, *Adjunct Professor of Biology,* B.S., Guilford College; M.S., University of North Carolina at Chapel Hill; Ph.D., The Johns Hopkins University.

Robert D. Roer, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.S., Brown University; Ph.D., Duke University.

Spencer McMath Rogers, Jr., *Adjunct Research Associate in Earth Sciences,* B.S., University of Virginia, M.S., University of Florida.

W. Terry Rogers, *Associate Professor of Drama and Speech,* B.A., University of Florida; M.S. M.A., Ph.D., Florida State University.

Lloyd Earl Rohler, Jr., *Assistant Professor of Speech Communication,* B.A., M.A., Ph.D, Indiana University.

Richard Allan Roscher, *Assistant Professor of Accountancy,* B.B.A., University of Notre Dame; M.B.A., University of Denver; CPA.

Marlene M. Rosenkoetter, *Associate Professor of Nursing,* Diploma in Nursing, Barnes Hospital School of Nursing; B.A., M.Ed., University of Missouri; M.S.N., East Carolina University; Ph.D., St. Louis University.

Gerald S. Rosselot, *Associate Professor of English,* B.S., Wilmington College (Ohio); M.A., DePauw University; Ph.D., University of North Carolina at Chapel Hill.

David Byron Roye, *Associate Professor of Biology,* B.S., College of William and Mary; M.S., Ph.D., University of Florida.

David M. Russell, *Assistant Professor of Mathematical Sciences,* B.S., M.S., Ph.D., University of Arizona.

James Carmen Sabella, *Professor of Anthropology,* B.S., State University of New York, Cortland; M.A., Ph.D., Cornell University.

Shiva Kumar Saksena, *Assistant Professor of Mathematical Sciences,* B.S., M.S., Agra University, India; M. Stat., Indian Statistical Institute; Ph.D., Louisana Tech University.

Richard J. Sanders, *Assistant Professor of Psychology,* B.A., University of California at Santa Barbara; M.Phil., Ph.D., Columbia University.

Rebecca Shields Sawyer, *Assistant Professor of Accountancy,* B.S., North Carolina State University; M.B.A., Duquesne University; CPA.

Yousry Sayed, *Associate Professor of Chemistry,* B.S., M.S., Cairo University; Ph.D., University of Minnesota.

John H. Scalf, Jr., *Professor of Sociology,* B.A., M.A., Stetson University; M.Div., Southeastern Baptist Theological Seminary; Ph.D., University of Kentucky.

Mark E. Scalf, *Lecturer in Physical Education,* B.A., University of North Carolina at Wilmington; M.A., University of North Carolina at Chapel Hill.

Timothy D. Schick, *Adjunct Professor in Earth Sciences,* B.A., Wayne State University; M.S., Ph.D., University of Cincinnati.

Walter Thomas Schmid, *Associate Professor of Philosophy and Religion,* B.A., M.Phil., Ph.D., Yale University.

William Schneider, *Associate Professor of History,* B.A., Stanford University; M.A., Duquesne University; Ph.D., University of Pennsylvania.

David G. Seiple, *Lecturer in English,* B.S., Thiel College; M.A., Edinboro State College; Ed.D., East Texas State University.

Jo Ann M. Seiple, *Associate Professor of English,* B.S., M.A., Ed.D., East Texas State University.

Thomas Howard Shafer, *Assistant Professor of Biology,* B.S., Duke University; M.S., Ph.D., Ohio State University.

James Michael Sharkey, *Lecturer in French,* B.A., M.A., Loyola University (Chicago); M.A., Ph.D., University of North Carolina at Chapel Hill.

Earl Sheridan, *Assistant Professor of Political Science,* B.A., Appalachian State University; M.A., Ph.D., University of Tennessee.

Lee M. Sherman, *Associate Professor of Management,* B.S., University of Maryland; M.B.A., American University; D.B.A., George Washington University.

David R. Shevach, *Assistant Professor of Sociology,* B.A., Harvard College; MSW, University of Iowa; M.A., Ph.D., University of California at San Diego.

Gerald H. Shinn, *Professor of Philosophy and Religion,* A.B., M.Th., Ph.D., Duke University. Danforth Associate.

David J. Sieren, *Professor of Biology,* B.A., Northland College; M.S., Ph.D., University of Illinois.

Henry Pate Singletary, *Adjunct Professor of Medical Technology,* B.S., M.D., Northwestern University.

Ronald K. Sizemore, *Associate Professor of Biology,* B.S., Wake Forest University; M.S., University of South Carolina; Ph.D., University of Maryland.

Thomas K. Skalko, *Assistant Professor of Recreation,* B.S., M.Ed., University of Georgia; Ph.D., University of Maryland.

Douglas D. Smith, *Professor of Mathematical Sciences,* B.S., M.A., University of Illinois; Ph.D., Pennsylvania State University.

Philip Charles Smith, Jr., *Assistant Professor and Librarian,* B.S., United States Naval Academy; M.S., Florida State University.

Sister Mary Matthew Snow, *Adjunct Lecturer in Medical Technology,* B.A., University of Maine; M.A.T., University of North Carolina at Chapel Hill; MT (ASCP).

Robert F. Soots, *Adjunct Associate Professor of Biology,* B.S., M.S., Ph.D., North Carolina State University.

Kenneth W. Spackman, *Associate Professor of Mathematical Sciences,* B.S., Pennsylvania State University; M.S., Ph.D., University of Colorado.

Jackson Gillen Sparks, *Professor of French,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Dennis J. Sporre, *Associate Professor of Drama,* B.A., Central Michigan University; M.A., University of Iowa.

Inge Bjerre Stites, *Lecturer in French and German,* Studentereksamen, Lyngby Statsskole; graduate study, Universite de Strasbourg.

John Lemacks Stokes, III, *Professor of English,* A.B., Pfeiffer College; B.D., Emory University; Ph.D., Drew University.

Doretha McKnight Stone, *Assistant Professor of Nursing,* B.S.N., Winston-Salem State University; M.S.N., University of North Carolina at Greensboro.

Sally Sullivan, *Assistant Professor of English,* B.A., M.A., Ph.D., University of North Carolina at Greensboro.

Doug W. Swink, *Associate Professor of Drama,* B.S., Davidson College; M.A., East Carolina University; graduate study, University of North Carolina at Chapel Hill.

Carole Ellsworth Tallant, *Assistant Professor of Communication,* A.B., M.A., University of North Carolina at Chapel Hill; Ph.D., Louisiana State University.

Terry Theodore, *Professor of Drama,* B.A., Wayne State University; M.A., University of Southern California; Ph.D., University of Michigan.

Carol Chase Thomas, *Assistant Professor of Education,* B.A., University of Kentucky; M.Ed., The Citadel; Ed.D., University of Kentucky.

Patricia G. Tjaden, *Assistant Professor of Criminal Justice,* B.A., M.A., Ph.D., University of Colorado.

Robert Brent Toplin, *Professor of History,* B.S., Penn State University; M.A., Ph.D, Rutgers University.

James A. Tribbett, *Lecturer in Physical Education,* B.S., Florida State University; M.A. DePauw University.

Frank Patrick Trimble, *Lecturer in Speech Communicaton,* B.A., M.A., Southern Illinois University.

Jack Thorne Turner, *Distinguished Professor of Marketing,* B.S., M.A., West Virginia University; D.B.A., Indiana University.

Larry Winfield Usilton, III, *Associate Professor of History,* B.A., M.A., Ph.D., Mississippi State University.

Richard C. Veit, *Associate Professor of English,* B.A., University of Notre Dame; M.A., Ph.D., University of Iowa.

Gilbert L. Voss, *Adjunct Research Professor in Biological Oceanography,* B.S., M.S., University of Miami; Ph.D., George Washington University.

William Morgan Wadman, *Associate Professor of Economics,* B.A., M.S., Brigham Young University; Ph.D., Claremont Graduate School.

William H. Wagoner, *Professor of Education and Lecturer in Political Science,* A.B., Wake Forest University; M.A., East Carolina University; Ph.D., University of North Carolina at Chapel Hill.

John Lewis Walker, III, *Associate Professor of English,* A.B., University of Virginia; M.A., University of California-Berkeley; Ph.D., University of Virginia.

Kathy Le Mons Walker, *Assistant Professor of History,* B.A., M.A., Florida State University; graduate study, University of California, Los Angeles.

Charles Richard Ward, *Assistant Professor of Chemistry,* B.S., Manchester College; M.S., Ph.D., Purdue University.

Mary M. Wasson, *Lecturer in English,* A.B., University of North Carolina at Chapel Hill; M.A., University of North Carolina at Greensboro.

Alan Douglas Watson, *Professor of History,* B.A., Duke University; M.A., East Carolina University; Ph.D., University of South Carolina.

Barbara F. Waxman, *Assistant Professor of English,* B.A., Douglass College, Rutgers University; M.A., City College of New York; Ph.D., City University of New York.

William David Webster, *Assistant Professor of Biology,* B.S., University of North Carolina at Wilmington; M.S., Michigan State University; Ph.D., Texas Tech University.

Steven Michael Weiss, *Assistant Professor of Speech Communication,* B.A., M.A., Ph.D., Temple University.

Betty Jo Hyde Welch, *Associate Professor of Speech Communication,* B.S., M.A., Middle Tennessee State College; Ed.S., George Peabody College; Ph.D., Vanderbilt University.

Lynda Gay Wendel, *Lecturer in Accountancy,* B.S., M.B.A., University of Oregon; CPA.

Michael D. Wentworth, *Assistant Professor of English,* B.A., University of Kansas; M.A., Eastern Michigan University; Ph.D., Bowling Green State University.

Charles W. West, Jr., *Associate Professor of Management,* B.E.E., M.B.A., Cornell University; Ph.D., The University of Louisville.

Betty Sue Westbrook, *Assistant Professor and Catalog Librarian,* A.B., Duke University; M.S., Florida State University.

Joan D. Willey, *Associate Professor of Chemistry,* B.S., Duke University; Ph.D., Dalhousie University.

John Taylor Williams, Jr., *Professor of Psychology,* B.A., University of Texas at Arlington; M.A., Ph.D., University of Florida.

Cecil L. Willis, *Associate Professor of Criminal Justice,* B.S., East Tennessee University; M.S., East Carolina University; Ph.D., Virginia Polytechnic Institute and State University.

Peggy Ann Winslow, *Lecturer in Geography,* B.S., M.A., Arizona State University.

Robert Michael Wolff, *Assistant Professor of Recreation,* B.S.B.A., University of Akron; M.B.A., M.A., Ph.D., Ohio State University.

William Walton Woodhouse, III, *Associate Professor of Spanish,* A.B., University of North Carolina at Chapel Hill; M.A., Ph.D., University of Wisconsin.

Eleanor Boyd Wright, *Assistant Professor of Education,* A.B., Greensboro College; M.A., State University of New York, College of Geneseo; Ph.D., University of North Carolina at Chapel Hill.

Joanna Ennis Wright, *Lecturer and Assistant Reference Librarian,* B.A., East Carolina University; M.L.S., University of North Carolina at Chapel Hill.

Charles G. Yarbrough, *Adjunct Associate Professor of Biology,* B.S., M.A., Wake Forest University; Ph.D., University of Florida.

Stephanie Young, *Assistant Professor of Drama,* B.A., University of California at Santa Barbara; M.A., San Francisco State University; M.F.A., in progress, Lindenwood IV College.

John Zeko, *Assistant Professor of Accountancy,* A.B., University of North Carolina at Chapel Hill; M.P.A., Georgia State University; CPA.

Victor A. Zullo, *Professor of Geology and Adjunct Professor of Biology,* B.A., M.A., Ph.D., University of California at Berkeley.

RETIRED FACULTY

***Franklin H. Allen, M.S. (1956-1981),** *Associate Professor of Biology*

***Anne Barksdale, M.S. (1957-1966),** *Assistant Professor of Business*

Luetta Navada Booe, M.S. (1965-1975), *Professor of Nursing*

Samuel Tinsley Chambers, Ph.D. (1964-1976), *Professor of History*

***James Marshall Crews, Ed.D. (1948-1981),** *Professor of Mathematical Sciences*

Henry G. Crowgey, Ph.D. (1967-1981), *Professor of History*

***Derick G.S. Davis, M.S. (1971-1983),** *Assistant Professor of Recreation*

***Will Scott DeLoach, Ph.D. (1963-1967),** *Professor of Chemistry*

Jack Dermid (1962-1985), *Associate Professor of Biology*

Joseph F. Dunn, M.Ed. (1968-1980), *Assistant Professor of Business Administration*

***Antolin Gonzalez-del-Valle, Ph.D. (1964-1976),** *Professor of Spanish*

***Helen Hagan, M.L.S. (1964-1974),** *Director of Library Services*

***B. Frank Hall, Th.D. (1963-1979),** *Professor of Philosophy and Religion*

***Claude F. Howell, H.H.D. (1953-1980),** *Associate Professor of Art*

***Adrian D. Hurst, M.A. (1947-1968),** *Associate Professor of Mathematics*

***Mildred Johnson, M.A. (1947-1960),** *Professor of Social Sciences*

Ruby Bame Knox, M.Ed. (1962-1978), *Assistant Professor of Business*

***Glenn Richard Long, M.A. (1966-1983),** *Assistant Professor of Mathematical Sciences*

***Margaret Shannon Morton, M.A. (1947-1965),** *Professor of English*

J. Paul Reynolds, Ph.D. (1964-1971), *Vice Chancellor for Academic Affairs*

***Eloise Scott, M.A. (1968-1976),** *Assistant Professor of Mathematical Sciences*

***Betty Holden Stike, M.A. (1964-1983),** *Assistant Professor of Education*

David E. Warner, M.Ed. (1965-1979), *Associate Professor of Health, Physical Education and Recreation*

***E. M. West, Ed.D (1963-1981),** *Professor of Business Administration*

Mary Alice Whitfield, M.S., (1965-1979), *Assistant Professor of Nursing*

**Emeritus status*

INDEX

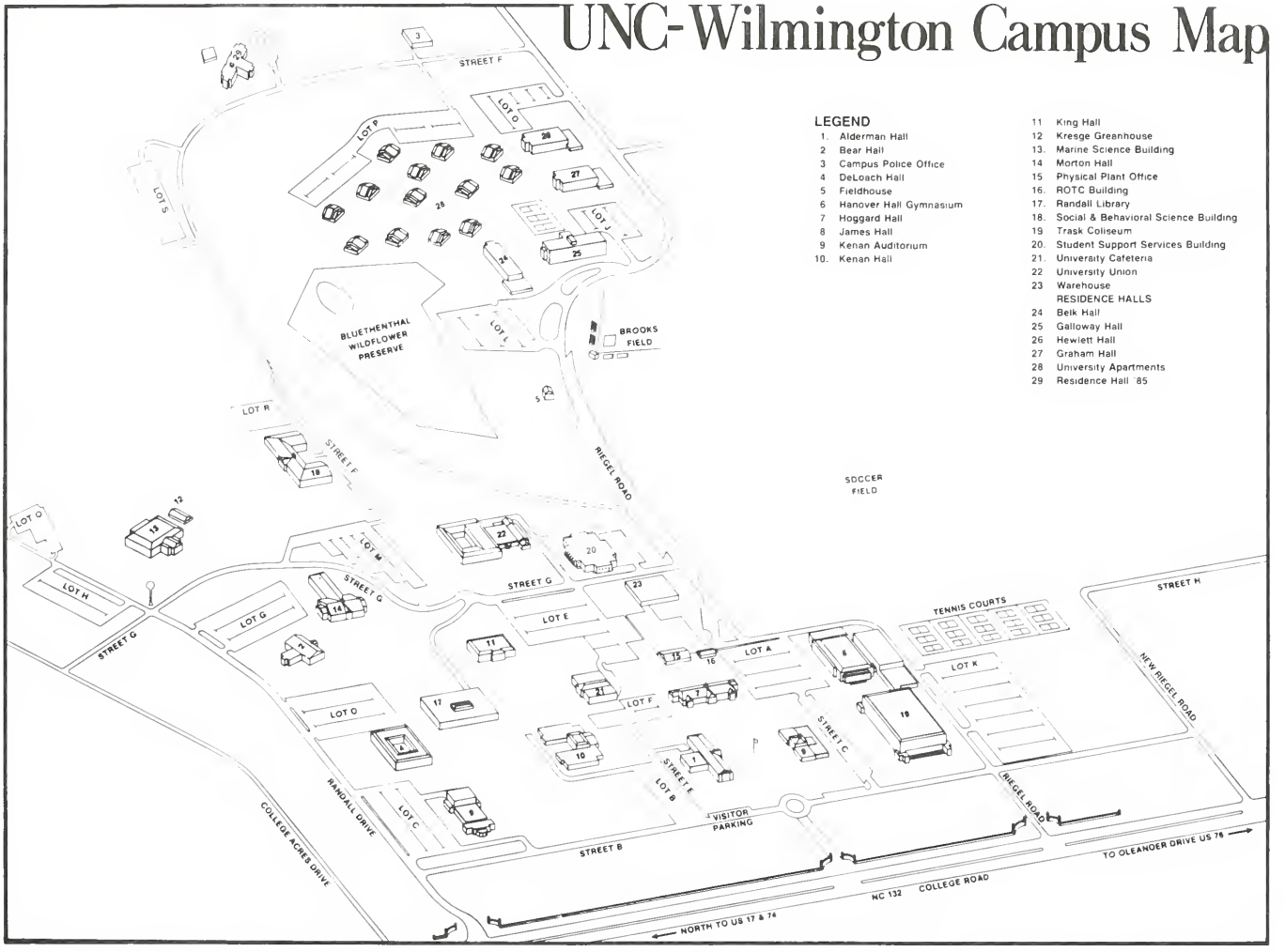
Academic Affairs 57
  Advisors 58
  Honor Code 59
  Probation 62
  Programs 66
  Regulations 58
  Suspension 62
Accountancy 180-182
Accreditation 13
Administrative officers and staff . 7
Admissions 19
  Former students 22
  Freshmen 20
  Graduate 224
  High school students 23
  International students 23
  Notification of
    acceptance 20
  Nursing program 22, 69
  Senior citizens 24
  Special students 23
  Summer visitors 23
  Transfer students 21
  Three-year rule 22
  Unclassified students 22
Adult education program ... 220-221
Advanced placement 58
Agriculture, preprofessional
  program 215
American Indian Student
  Legislative Grant 34
Anthropology 166-170
Application dates 20
Application fee 21
Areas of study 66
Army ROTC 143-144, 220
Art 88-90
Art exhibitions 54
Athletics 53
Attendance regulations 61
Auditing courses 60
Awards 54-55
Bachelor of Arts degree 66
Bachelor of Science degree 66
Basic studies requirements ... 69-71
Biological Sciences 73-81
Board of Governors 10
Board of Trustees 12
Buildings 15
Business Administration,
  Cameron School of,
  Admissions requirements 68
  Degrees, concentrations 179
Business Management
  Courses 186-189
Calendar of events 5
Campus 15
Campus map 282
Career Planning and Placement .. 44
Change of name or address 64
Chemistry 81-85
Class attendance 61
Classification of students 61
Clubs and organizations 52
College of Arts and
  Sciences 67, 73-178
Computer Science 133-137
Continuing Education 220
Correspondence credit 58
Course descriptions 66
Creative Arts 87
  Art 88-90
  Drama 90-93
  Music 93-100
  Speech Communication .. 101-103
Credit 58
  Correspondence 58
  Transfer 58
Criminal Justice 171-172
Curricular Studies 191
Dean's list 59
Debate team 54
Deficiencies 62
Degrees offered 66
  Areas of study 66
  General requirements 67-71
  Requirements for
    second degree 64
Dentistry, preprofessional
  program 216-217
Directed individual study 72
Directory information 46
Dismissal 62
Disruption of educational
  process 46-47
Dormitories 16

Drama 90-93
Earth Sciences 104
Economics and Finance 182-186
Education, School of 191-203
  Admissions requirements 68
  Courses 198-203
  Degree, concentrations... 191-197
Educational Design and
  Management 191
Employment 38
Engineering 111, 215
English 112
Environmental Studies 118-120, 219
Examinations
  Admissions 21
  Advanced placement 58
  Final examinations 61
Exemptions 59
Expenses 28, 226
Extension program 221
Faculty 260-276
Fees
  Application 21
  Graduate 226
  Graduation 28
  Late registration 28
Field experience in biology 219
Final examinations 61
Financial Aid 34
  Undergraduate 34
  Graduate 229
Food service 45
Forensics team 54
Foundation Chair 14
French 145-146
Freshmen 20, 21, 58
  Admissions 20, 21
  Orientation 58
  Registration 58
General College Advising
  Program 67
General degree
  requirements 69-71
Geography 104-107
Geology 107-111
German 149
Grade appeals 61
Grading 59
Graduate studies 224-257
  Adding, dropping,
    withdrawing 231
  Admissions requirements . 224-226
    General 224
    Master of Business
      Administration 225
    Master of Education 225
    Master of Science 226
  Application for admission to
    candidacy and the degree... 233
  Course credit 230
  Degree time limits 233
  Examination,
    comprehensive 232
  Foreign language
    requirement 233
  Financial aid 229
  Graduate grading 231
  Master of Business
    Administration 234-239
    Course descriptions 235-239
    Accountancy 235, 236
    Business Management . 236, 237
    Economics 237, 238
    Finance 238
    Marketing 238, 239
    Degree requirements 234
  Master of Education 239-249
    Course descriptions 242-249
    Degree requirements... 239-242
    Educational Administration and
      Supervision Program..... 242
      Administrative Track 242
      Supervision Track 242
    Elementary Education
      Program 239-241
      Early Childhood
        Track 239
      Intermediate Track 240
    Special Education Program . 241
  Master of Science in
    Marine Biology 250
    Course descriptions 251-257
    Degree requirements 250
    Tracks
      Biological Oceanography . 251
      Coastal Biology 251
      Marine Biology 250

Graduate Studies (continued)
Minority Presence Grant Program 229
On-campus living 227
Procedure for protest of grade 232
Refunds 227-228
Registration 230
Residence credit computation 232
Residency status for tuition payment 228
Summer session 227
Thesis 233
Tuition and fees 226-227
Veterans educational benefits 229
Withdrawal 231
Graduation 28, 63
Application 63
Fee 28
Requirements 63
With distinction 64
Grants 34-35
Health examination 71
Health, Physical Education and Recreation 120-126
Health services 45
History 127-132
History of UNCW 12
Honor Code 59
Honor societies 54-55
Honors Program 62
Housing 45
Humanities area requirements ... 67
Incomplete grades 59
Indebtedness 64
In-state status for tuition 28
Institute for Marine Biomedical Research 219
Insurance, student health 45
International students 23
Law, preprofessional program .. 216
Library 16
Loans 38-39
Majors, areas of study 66
Major, double 64
Management and Marketing 186-190
Marine Biology 74, 218
Graduate 250-257
Marine Science Research 218
Marketing 186-190
Mathematical Sciences 132-143
Meals 29
Medical services 45
Medical Technology 211-214
Medicine, preprofessional program 216
Military Science 143-144
Minority presence grant program 34
Modern Languages 144-149
Music 93-100
Musical organizations 53
Natural science requirements 69-70
Nondiscrimination Policy 24
Nursing program 204-210
Off-campus courses 60
Office of Special Programs 220
On-campus living 29
Organizations and clubs 52
Orientation 58
Out-of-state status for tuition 28
Parks and Recreation Management 124
Payments 28
Pharmacy, preprofessional program 217
Philosophy and Religion ... 150-155
Physical Education 120-126
Physics 85-87
Placement service 44
Political Science 156-160
Portuguese 150
Postal Services 52
Preprofessional programs 215
Agriculture 215
Dentistry 216
Engineering 215
Forestry 215
Law 216
Medicine 216
Pharmacy 217
Veterinary Medicine 218
Preregistration 58
Probation, academic 62

Professional programs 211-215
Medical Technology 211-214
Nursing 214
Teacher Education 215
Psychology 160-165
Publications, student 53
Readmission 62
Recreation courses 124-126
Refunds 29, 30, 227, 228
Registration 58
Religion 153-155
Repeating of courses 60
Residence status for tuition 30-32
Requirements
Admission 20, 21
Basic studies 69-71
Double major 63
Graduation 63
Physical Education 71
Retention 62
Second degree 64
Residence Life Program 45
Retention chart 62
ROTC, *See* Military Science
Safety and health program 24
Scholarships 35-38
School of Business Administration, Cameron 68, 179, 234
School of Education ... 68, 191, 239
School of Nursing 204
Second degree requirements 64
Senior citizens 24
Social Science 166
Social Work 172-174
Sociology and Anthropology 166-178
Spanish 147-149
Special Education 196
Special programs 218
Army ROTC program 220
Continuing Education 220
Environmental Studies 219
Extension 221
Field Experience in Biology .. 219
Institute for Marine Biomedical Research 219
Special Programs (continued)
Marine Biology curriculum ... 218
Marine Science Research 218
Office of Special Programs 220
Special students 23
Speech Communication 101-103
Statistics 141-143
Student Affairs 43
Student conduct 46
Student Development Center 44
Student Government Association 52
Student Health Services 45
Student life 51
Summer school 221
Suspension 62
Teacher Education Program 215
Teaching Excellence Award 14
Thesis 233
Three-year rule 22
Transcripts 64
Transfer students 21
Admission 21
Credit 58
Trial courses 71
Tuition and fees 28, 226
Unclassified students 22
Admission 22
Definition 22
University of North Carolina . 10, 11
Board of Governors 10
General Administration Officers 10
History 11
University Program Board 52
University Readers Theatre 54
University Theatre 54
University Union 52
Veterans' Affairs 41
Veterinary Medicine, preprofessional program 218
Withdrawal 60
Work programs 38

UNC-Wilmington Campus Map



UNCW
University of North Carolina
at Wilmington
601 S. College Road
Wilmington, N.C. 28403-3297

The University of North Carolina at Wilmington

1986 – 87

Undergraduate and Graduate CATALOG

The University of North Carolina at Wilmington

1986-87 Undergraduate and Graduate

Catalog

Bulletin 38

The University of North Carolina at Wilmington is committed to equality of educational opportunity and does not discriminate against applicants, students, or employees based on race, color, national origin, religion, sex, age, or handicap. Moreover, The University of North Carolina at Wilmington is open to people of all races and actively seeks to promote racial integration by recruiting and enrolling a larger number of black students.

TABLE OF CONTENTS

Calendar of Events....5
Administrative Officers....7
The University of North Carolina....10
The University of North Carolina at Wilmington....12
Admissions....20
Expenses....28
Financial Aid....34
Student Affairs....42
Student Life....50
Academic Regulations....56
Degree Requirements and Course Descriptions....64
Graduate Studies....228
Faculty....264
Index....281
Campus Map....285

All provisions, regulations, degree programs, course listings, etc., in effect when this catalogue went to press are subject to revision by the appropriate governing bodies of The University of North Carolina at Wilmington.

12,000 copies of this public document were printed at a cost of $13,411 or $1.12 per copy (G.S. 143-170.1)

John J. Burney, Jr.
Chairman, Board of Trustees

Dr. William H. Wagoner
Chancellor

On behalf of the Board of Trustees, we welcome all students to *your* University.

Your adventure in education will be the most exciting and lasting chapter of your life. Your quest for knowledge and guidance, lasting friendships and memories, will be an experience that no one can ever take from you.

The Board of Trustees, administration and our excellent faculty will provide you with a climate for adventure and learning.

We welcome you in this joint adventure with enthusiasm and pride.

Very truly yours,

John J. Burney Jr.

John J. Burney, Jr.
Chairman, Board of Trustees

It is with a great deal of pleasure that I welcome each of you to The University of North Carolina at Wilmington. You will find that this is a friendly community of scholars, and I believe you will enjoy being a part of it as much as I do.

This campus is one of the fastest growing campuses in the University system, and we are proud of our accomplishments over the years.

The programs offered by the University are designed to serve a broad spectrum of interests in the liberal arts and sciences. Undergraduate instruction and research opportunities are provided in fine arts, humanities, natural and social sciences, teacher education and other professional disciplines. Pre-professional programs in medicine, pharmacy, engineering, forestry, dentistry, agriculture and law are also offered. Strong programs in the fine arts include studio art, drama and applied music.

Programs available through UNC-Wilmington's graduate school include several options in the School of Education, a Master of Science program for Marine Biology and a unique and innovative program leading to the degree of Master of Business Administration.

We welcome you to "UNC by the Sea"—a very special place!!

Sincerely,

William H. Wagoner

William H. Wagoner
Chancellor

1986

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
18	17	18	19	20	21	22
23	24	25	26	27	28	

MARCH

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
18	17	18	19	20	21	22
23	24	25	26	27	28	26
30	31					

APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

OCTOBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
18	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

1987

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

OCTOBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

1988

JANUARY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

MARCH

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

AUGUST

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPTEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	26
30	31					

NOVEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

DECEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

CALENDAR OF EVENTS

Fall Semester, 1986

August 23, Saturday	On-campus housing opens for new students
August 24, Sunday	On-campus housing opens for returning students
August 25, Monday	Orientation and advising
August 26, Tuesday	Registration
August 27, Wednesday	Classes begin
September 1, Monday	Labor Day holiday
September 3, Wednesday	Last day to drop or add without a grade
September 18,Thursday	Faculty Meeting
October 8, Wednesday	Last day to withdraw with W – Undergraduate Students
October 8, Wednesday	Fall vacation begins 10:30 p.m.
October 13, Monday	Fall vacation ends 8:00 a.m.
October 29, Wednesday	Graduation application deadline – Spring 1987
November 11, Tuesday	Last day to withdraw WP – Graduate Students
November 25, Tuesday	Thanksgiving vacation begins 10:30 p.m.
December 1, Monday	Thanksgiving vacation ends 8:00 a.m.
December 9, Tuesday	Last day of classes
December 10, Wednesday	Reading Day – First Evening Exam
December 11-13,Thursday-Saturday	Final examinations
December 15-18, Monday-Thursday	Final examinations
December 18, Thursday	Fall Semester ends/on-campus housing closes

Spring Semester, 1987

January 7, Wednesday	On-campus housing opens for new students
January 8, Thursday	On-campus housing opens for returning students
January 8, Thursday	Orientation and advising
January 9, Friday	Registration
January 12, Monday	Classes begin
January 16, Friday	Last day to drop or add without a grade
February 20, Friday	Last day to withdraw with W – Undergraduate Students
February 27, Friday	Graduation application deadline, Summer 1987
February 27, Friday	Spring vacation begins 10:30 p.m.
March 9, Monday	Spring vacation ends 8:00 a.m.
March 31, Tuesday	Last day to withdraw with WP – graduate students
April 9, Thursday	Faculty Meeting
April 17, Friday	Easter vacation begins 10:30 p.m.
April 21, Tuesday	Easter vacation ends 8:00 a.m.
April 29, Wednesday	Last day of classes
April 30, Thursday	Reading Day – First Evening Exam
May 1-2, Friday-Saturday	Final examinations
May 4-8, Monday-Friday	Final examinations
May 8, Friday	Spring Semester ends/on-campus housing closes
May 16, Saturday	Commencement

Summer Session, 1st, 1987

May 21, Thursday	On-campus housing opens
May 22, Friday	Registration
May 25, Monday	Classes begin
May 26, Tuesday	Last day for registration
May 27, Wednesday	Last day to drop without a grade
June 3, Wednesday	Last day to withdraw with W – undergraduate students
June 12, Friday	Last day to withdraw with WP – graduate students
June 23, Tuesday	Graduation application deadline – Fall 1987
June 24, Wednesday	Final Examinations; term ends

Summer Session, 2nd, 1987

June 28, Sunday	On-campus housing opens
June 29, Monday	Registration
June 30, Tuesday	Classes begin
July 1, Wednesday	Last day for registration
July 2, Thursday	Last day to drop without a grade
July 6, Monday	July 4th holiday
July 10, Friday	Last day to withdraw with W – undergraduate students
July 21, Tuesday	Last day to withdraw with WP – graduate students
July 31, Friday	Final Examinations; term ends

ADMINISTRATIVE OFFICERS OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

William H. Wagoner, Ph.D. ..... *Chancellor*
George E. Bair, Ph.D. ..... *Special Assistant to the Chancellor*

ACADEMIC AFFAIRS

Charles L. Cahill, Ph.D. ..... *Provost and Vice Chancellor for Academic Affairs*
James K. McGowan, Ph.D. ..... *Associate Vice Chancellor for Academic Affairs - Director of Graduate Studies*
Paul E. Hosier, Ph.D. ..... *Assistant Vice Chancellor for Computer and Information Systems*
David K. Miller, Ph.D. ..... *Assistant Vice Chancellor for Academic Affairs*
Daniel B. Plyler, Ph.D. ..... *Dean, College of Arts and Sciences*
Norman R. Kaylor, Ph.D. ..... *Dean, Cameron School of Business Administration*
Roy E. Harkin, Ph.D. ..... *Dean, School of Education*
Marlene M. Rosenkoetter, Ph.D. ..... *Dean, School of Nursing*
James F. Merritt, Ph.D. ..... *Acting Director of Institute for Marine Biomedical Research*
Eugene W. Huguelet, M.L.S. ..... *Director of Library Services*
John J. Manock, Ph.D. ..... *Director of Research Administration*
James C. Edmundson, Ed.D. ..... *Director of Special Programs*
Dorothy P. Marshall, B.S ..... *Registrar*
Diane M. Zeeman, M.A. ..... *Director of Undergraduate Admissions*
Catherine C. Cleare, Ph.D. ..... *Director of Mathematics and Science Education Center*

BUSINESS AFFAIRS

R. O. Walton, Jr., B.A ..... *Vice Chancellor for Business Affairs*
Charles W. King, M.A. ..... *Assistant Vice Chancellor for Business Affairs - Business*
Timothy A. Jordan, M.B.A. ..... *Assistant Vice Chancellor for Business Affairs - Finance*
J. Carl Dempsey, M.Ed. ..... *Assistant to Vice Chancellor for Business Affairs*
Tammy E. Blizzard, B.S. ..... *Director of Accounting*
Nikki S. Howard, B.S., C.P.A. ..... *Director of Internal Auditing*
William R. Calloway, M.P.A. ..... *Director of Personnel Services*
Roger E. Fry, B.S.C.E., P.E. ..... *Director of Physical Plant Services*
Joseph M. Johnson, Jr., B.S. ..... *Director of Public Safety*
Charles L. Sanders, III, C.P.M. ..... *Director of Purchasing Services*
Suzanne Bulla, B.S. ..... *Director of Systems and Budget*

STUDENT AFFAIRS

William A. Bryan, Ed.D. ..... *Vice Chancellor for Student Affairs*
David F. Allen, Ph.D. ..... *Special Assistant to Vice Chancellor for Student Affairs*
Richard H. Mullendore, Ph.D. ..... *Dean of Students*
Joseph V. Capell, M.Div. ..... *Director of Financial Aid*
Diane L. McKinstry, Ph.D. ..... *Director of Student Development Center*
Linda Moore, M.Ed. ..... *Director of University Union*
Catherine Vangellow, P.A. ..*Administrative Director, Student Health and Wellness Center*

SUPPORTING SERVICES

William J. Brooks, M.S. ..... *Director of Athletics*
M. Tyrone Rowell, M.A. ..... *Director of Development Services*
Robert E. Fry, M.S.P.H. ..... *Director of Institutional Research*
Ralph H. Parker, M.Ed. ..... *Director of Minority Affairs*
Isabell L. Foushee, M.A. ..... *Federal Compliance Officer*

THE UNIVERSITY

THE UNIVERSITY OF NORTH CAROLINA

SIXTEEN CONSTITUENT INSTITUTIONS

C. D. Spangler, Jr., B.S., M.B.A. ..... *President*
Raymond H. Dawson, B.A., M.A., Ph.D. ..... *Vice President-Academic Affairs*
L. Felix Joyner, A.B. ..... *Vice President-Finance*
Roy Carroll, B.A., M.A., Ph.D. ..... *Vice President-Planning*
Lloyd V. Hackley, B.A., Ph.D. ..... *Vice President-Student Services and Special Programs*
Jasper D. Memory, B.S., Ph.D. ..... *Acting Vice President-Research and Public Service*
Arnold K. King, A.B., A.M., Ph.D. ..... *Assistant to the President*
R. D. McMillan, Jr., B.S. ..... *Assistant to the President for Governmental Affairs*
Richard H. Robinson, Jr., A.B., LL.B. ..... *Assistant to the President*
John W. Dunlop, B.A. ..... *Director, The University of North Carolina Center for Public Television*

BOARD OF GOVERNORS
THE UNIVERSITY OF NORTH CAROLINA

Philip G. Carson, Chairman
Jacob H. Froelich, Jr., Vice Chairman
Mrs. Geneva J. Bowe, Secretary

Class of 1987

B. Irvin Boyle
Mrs. Robert H. Bullock
William A. Dees, Jr.
Jacob H. Froelich, Jr.
James E. Holshouser, Jr.
William A. Johnson
Robert L. Jones
E. B. Turner

Class of 1989

Mrs. Geneva J. Bowe
Philip G. Carson
Walter R. Davis
R. Phillip Haire
Mrs. Hugh Morton
Asa T. Spaulding, Jr.
David J. Whichard, II
William K. Woltz

Class of 1991

Irwin Belk
Wayne A. Corpening
J. Earl Danieley
Mrs. Stanley H. Fox
John R. Jordan, Jr.
Samuel H. Poole
J. Aaron Prevost
Louis T. Randolph

Class of 1993

Roderick D. Adams
Charles Z. Flack, Jr.
John A. Garwood
Reginald F. McCoy
Mrs. John F. McNair, III
D. Samuel Neill
Maceo A. Sloan
Ms. Ruth Dial Woods

HISTORY OF THE UNIVERSITY

The University of North Carolina is comprised of all the public institutions of higher education in North Carolina that confer degrees at the baccalaureate level or higher. The University was authorized by the State Constitution in 1776, and it was chartered in 1789 by the General Assembly.

The University of North Carolina opened its doors to students at Chapel Hill in 1795. Thereafter, beginning in the latter part of the nineteenth century, the General Assembly of North Carolina has established and supported fifteen other public senior institutions in keeping with Article IX, Section 8, of the Constitution of North Carolina which provides that the "General Assembly shall maintain a public system of higher education, comprising The University of North Carolina and such other institutions of higher education as the General Assembly may deem wise."

By 1969, The University of North Carolina included six constituent institutions, governed by a single Board of Trustees. This multi-campus University had its beginnings in legislation enacted in 1931 that defined The University of North Carolina to include The University of North Carolina at Chapel Hill, North Carolina State University at Raleigh, and The University of North Carolina at Greensboro. In the 1960's three additional campuses were added: The University of North Carolina at Charlotte, The University of North Carolina at Asheville, and The University of North Carolina at Wilmington.

Beginning in 1877, the General Assembly of North Carolina established or acquired ten additional separately governed state- supported senior institutions of higher education. They are: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. Then, in 1971, the General Assembly redefined The University of North Carolina, and under the terms of that legislation all sixteen public senior institutions became constituent institutions of The University of North Carolina.

The constitutionally authorized Board of Trustees of the six campus University of North Carolina was designated the Board of Governors and this body is by law The University of North Carolina. The Board of Governors consists of thirty-two members elected by the General Assembly, and it is charged with "the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." The chief executive officer of The University is the President.

Each constituent institution of The University has its own faculty and student body. The chief administrative officer of each institution is the chancellor, and the chancellors are responsible to the President.

Each constituent institution also has a board of trustees composed of thirteen members: eight elected by the Board of Governors, four appointed by the Governor, and the elected president of the student body *ex officio*. (The School of the Arts has two additional *ex officio* trustees.) The principal powers of these institutional boards are exercised under a delegation of authority from the Board of Governors.

BOARD OF TRUSTEES
THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

John J. Burney, Jr., Chairman
B. D. Schwartz, Vice Chairman
Mrs. Betty H. Cameron, Secretary

Class of 1987

Mrs. Elizabeth H. Cameron
W. Albert Corbett
F. P. Fensel
Bishop Ruben L. Speaks
Mrs. Julia W. Taylor
John D. Warlick, Jr.

Class of 1989

John J. Burney, Jr.
John B. Codington
Margaret F. Heyward
John D. Merritt
Justin Raphael
B. D. Schwartz

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington College, a locally supported and governed institution, to provide the youth and adults of New Hanover County and Southeastern North Carolina an opportunity for two years of university parallel study, semiprofessional training and vocational-technical education at moderate expense. From these beginnings and goals and through a series of transformations with ever-widening programs and aspirations, in 1969 it became a constituent institution of The University of North Carolina, whose purpose, resources, and direction it shares.

The University of North Carolina at Wilmington is a community of scholars dedicated to teaching, learning, creating, and extending knowledge through research. Its objectives are to stimulate curiosity, imagination, and creativity; to communicate both general knowledge and the facts and concepts particular to various disciplines and professional programs; to foster clear thinking, rational decision-making, and fluent, accurate communication; and to develop skills appropriate to the various disciplines and professional programs.

The programs offered by the University include four-year programs leading to the Bachelor of Arts and Bachelor of Science degrees within the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing; graduate programs leading to the Master of Education, the Master of Science, and the Master of Business Administration degrees; a variety of pre-professional programs; a two-year program leading to the Associate in Arts degree in Nursing (last class admitted 1984); and special programs in a variety of areas, including Marine Science Research, Army ROTC, and Continuing Education. The University's recent development has made possible increasingly diverse contributions, some of international significance. Its aim is to continue and to improve its innovative programming and comprehensive approach to meeting the wide-ranging needs of the region, the state, and the larger community.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the North Carolina College Conference and under the administration of the Directorate of Extension of The University of North Carolina

at Chapel Hill. The center offered courses on the freshman level to some 250 students during the academic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution under the control of the New Hanover County Board of Education. In 1948 Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952 the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree.

By vote of the Board of Trustees of The University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state- supported senior institutions into the university. Thus The University of North Carolina now comprises 16 institutions.

On August 22, 1977, the Board of Governors of The University of North Carolina authorized The University of North Carolina at Wilmington to offer its first graduate programs at the master's level.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association of Colleges and Schools and the North Carolina Association of Colleges and Universities. The School of Education is accredited by the National Council for Accreditation of Teacher Education. The University also holds membership in the American Assembly of Collegiate Schools of Business, the American Council on Education, the American Placement Council, and the Council for Advancement and Support of Education, and is on the list of schools approved by the American Chemical Society.

THE FACULTY

The University seeks to attract and maintain a faculty of outstanding individuals who are capable of contributing to the enrichment of its diverse and comprehensive instructional and research programs. Its faculty members come from all geographic sections of the United States and several foreign countries, bringing to this campus a rich variety of educational experiences, training and scholarship. Of the more than 332 instructional and research faculty, more than 66 percent hold doctoral degrees.

In addition to its primary responsibilities of teaching, the faculty actively engages in research and creative pursuits. Research interests are widespread in the various disciplines within the humanities, natural, physical, behavioral, and social sciences, and the professions. One of the major areas of interest is the marine sciences in which

extensive research is conducted in such fields as marine biology, chemical and physical oceanography, and coastal environments. Many of these research activities culminate in the publication of books and scholarly articles and presentation of papers at professional associations, bringing acclaim to the University as well as the faculty. Certain other faculty members are widely recognized for their outstanding achievements in the literary, visual, and performing arts.

As an outgrowth of their professional training and/or University affiliation, UNCW faculty members serve the community at large in various ways. Many participate in artistic, business, educational, governmental, religious and other professional and humanitarian activities. Inasmuch as the University is dedicated to serving its total constituency, faculty members are encouraged to serve in an educational, advisory or informational capacity to enhance the welfare of the community at large.

BOARD OF TRUSTEES' TEACHING EXCELLENCE AWARD

The Board of Trustees of The University of North Carolina at Wilmington, taking note of this institution's commitment of teaching excellence, has established the Board of Trustees' Teaching Excellence Award. Recipients of the award manifest excellence as a way of life and stand out among the faculty as persons who have made and continue to make a significant contribution to higher education through their dedication and service to students. The award carries with it both an honor and a responsibility: it specifies a member of the faculty as a person of excellence and it calls upon the person so honored to share that excellence with colleagues and students.

THE FOUNDATION CHAIR

The Foundation of The University of North Carolina at Wilmington is a charitable, non-profit corporation established for the sole purpose of supporting the University. Through private donations it supports a faculty Chair, designated to assist the University in its long-range efforts concerning faculty development and recruitment. The Foundation Chair, which is currently allocated to the various academic disciplines on a rotating basis, enables the University to bring to this campus renowned scholars and performing artists. In filling the Chair a special effort is made to select individuals whose contributions will benefit not only the University, but also the community at large.

NOTE: For faculty directory see page 264.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state on a 650-acre tract on State Highway 132 (College Road) midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River and is about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. The standard metropolitan area, of which Wilmington is a part, now has a population in excess of 97,400. Several main highways lead into the city, and commercial air service provides easy access to other metropolitan areas north, south, and west.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious well-landscaped campus was first occupied by the University in 1961. The number of buildings has increased from three in 1961 to forty-three today. There are several athletic fields and ample space for parking.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings, as well as the cafeteria and residence halls, are completely air-conditioned.

Edwin A. Alderman Hall, which houses administrative offices, is named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University.

Hoggard Hall, an academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the School of Nursing, laboratories, the computing center, special programs, and faculty and staff offices.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the Creative Arts Department. It contains classrooms, faculty offices, art and music studios, the music library, and electronic music studio, dramatic workshops and the S.R.O. Theatre. It also contains an auditorium with a seating capacity of approximately 100.

Will S. DeLoach Hall houses the department of Chemical and Physical Sciences. It is equipped with classrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped laboratories for the physical sciences.

Friday Hall, named in honor of UNC President Emeritus William C. Friday and his wife Ida, was completed in 1974. It houses the departments of Biological Sciences and Earth Sciences and contains classrooms and laboratories.

Arnold Kimsey King Hall houses the School of Education and contains an auditorium with a seating capacity of 191, classrooms, faculty offices, and a curriculum laboratory.

Isaac Bear Hall, completed in 1972, contains classrooms, a computer laboratory, and faculty offices for the Cameron School of Business Administration.

Morton Hall, named for Margaret Shannon Morton, was completed in October 1978 and houses the departments of English, History, Mathematical Sciences, and Modern Languages. The building contains classrooms, seminar rooms, and the Bryan Auditorium which seats 200.

The Social and Behavioral Sciences Building was completed in 1980. It houses the departments of Psychology, Philosophy and Religion, Political Science, and Sociology/Anthropology, as well as some offices of the campus computing center.

The Sarah Graham Kenan Auditorium, a gift from the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains seminar rooms for the Department of Creative Arts.

Hanover Hall and Trask Coliseum, the physical education complex, provide modern facilities for the athletic activities of all students, including a large playing floor with

rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment.

The Raiford G. Trask Health and Physical Education Building provides the campus with a 6,000 seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction was completed in the fall of 1977.

The University Union is the newest and second largest building on campus. Serving as the "living room" of the University community, it houses a wide variety of services, student and administrative offices, while providing space for campus activities and meetings.

Hinton James Hall, named for a New Hanover County resident who was the first student to enroll at The University of North Carolina, houses the Financial Aid Office, Registrar Services, Undergraduate Admissions, Cashier, and the office of the dean of the College of Arts and Sciences.

A new University Student Support Center opened in the summer of 1985. Centrally located adjacent to the University Union, it houses the University Bookstore, Student Health Services, and Student Development Center.

The University Cafeteria, opened in 1971, provides space for food services for students and faculty and contains the most modern food service equipment.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, opened in June 1976, accommodates 200 students. The 200-student residence hall, Addison Hewlett, Jr., Hall, opened in the fall of 1978. Another residence hall for 220 students, Frederick B. Graham Hall, was occupied in the fall of 1979. In the fall of 1981, the 400-student apartment complex was completed and occupied. Housing for an additional 160 students opened in the fall of 1985.

WILLIAM MADISON RANDALL LIBRARY

The William Madison Randall Library, completed in 1969, is named for the President Emeritus of Wilmington College. It has a seating capacity for more than 500 readers and space for 250,000 volumes. The collection contains over 250,000 volumes shelved in open stack areas according to the Library of Congress classification system. Rare and unique items are housed in the Helen Hagan Rare Book Room. Some 4200 serial publications are received regularly on subscription; and extensive journal backfiles are maintained in bound volumes and in microformat. Coin-operated machines for copying microforms and hardbound materials are available.

The Randall Library is a partial depository for United States government publications, and the collection now consists of over 230,000 documents. These materials are always available to all of the Library's users.

A growing audiovisual collection containing materials in several formats is conveniently located on the first floor. A 73-seat auditorium is equipped for various types of audiovisual use.

The Randall Library is open at least 98 hours per week during the regular academic session. Several reference librarians are available to provide assistance and guidance to students and faculty who need their services.

A construction/renovation project, which will more than double the size of the present facility, was begun in August, 1985, and is scheduled for completion during the summer of 1987.

HERBERT BLUETHENTHAL MEMORIAL WILDFLOWER PRESERVE

The Herbert Bluethenthal Memorial Wildflower Preserve is a tract of approximately 10 acres set aside on the campus by the University's Board of Trustees in response to a donation by Mrs. Herbert Bluethenthal of Wilmington. The Preserve includes a wide variety of plant communities, marked trails to follow, and labeled plants to observe.

It is dedicated to the preservation of the rich and varied flora of Southeastern North Carolina and has been designed to provide a place of contentment and pleasure for those who enjoy and appreciate our native plants.

ADMISSIONS

ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. Students must have the motivation and the determination to avail themselves of the learning experiences that will be beneficial to them if they are to attain both academic and personal enrichment. As a state-supported institution, the University is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may apply to enter the University at the beginning of the fall or spring semester and at the beginning of each summer term. Applications for fall semester must be filed by July 1; applications for spring semester must be filed by November 1. Students desiring to enroll in summer school must make application prior to the summer session registration date. The academic qualifications of each applicant are carefully reviewed by admissions personnel in a conscientious effort to admit students who have the potential for further academic achievement and growth.

Over enrollment or state budgetary constraints may require the restriction of admissions during a given year. This may require the adjustment of minimum requirements or the establishment of earlier application deadlines. An immunization record for each newly admitted UNCW student is required by law to be on file at UNCW prior to enrollment.

APPLICATION DATES

All students applying for admission or readmission to The University of North Carolina at Wilmington must complete their application for admission or their re-enrollment form by July 1 for the fall semester and by November 1 for the spring semester. Applications for summer sessions must be received in the Office of Admissions *prior* to each summer session registration date.

NOTIFICATION OF ACCEPTANCE

Applicants are notified of action taken on their application as soon as possible. Admission decisions can be made only after all required information is in the Office of Admissions.

ADMISSIONS-FRESHMEN

The requirements for admission to The University of North Carolina at Wilmington are:

(1) Graduation from an approved or accredited high school, or a GED certificate.
(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).
(3) An overall "C" average on all work attempted in grades 9-12.
(4) The following specific high school units:
    4 units in English
    *2 units in one foreign language
    2 units in Mathematics (Algebra I and Geometry or Algebra II)
    2 units in Social Science
    1 unit in Science
    *Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they may graduate with the baccalaureate degree.

Admissions requirements will change, effective Fall 1988 semester. These new requirements are outlined at the end of this Admissions section.

Application Procedure for Freshmen

Applicants are required to comply with the following:

1. Submit a completed application form by the deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school work or GED. The transcript must be sent directly to the Office of Admissions, The University of North Carolina at Wilmington, 601 S. College Road, Wilmington, North Carolina 28403-3297.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the ACT of the American College Testing Program. Because of deadlines for filing application to take the tests, arrangements must be made well in advance of the testing date so that the application is received by the testing company in time. Applicants are accepted to UNCW on the basis of their junior or senior SAT or ACT scores. For information about the SAT, contact the secondary school guidance counselor or write or call College Board ATP, P.O. Box 592, Princeton, New Jersey 08540, (609) 921-9023. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, P.O. Box 1025, Berkeley, California 94701, (415) 849-0950. For information about the American College Testing Program, write The College Testing Program, Program Services Department, P.O. Box 168, Iowa City, Iowa 52243.

It is important that the high school transcript, or GED, and test scores reach the University by the application deadline date so that all matters relating to the application may be complete before the opening of the semester in which the student expects to enroll.

ADMISSIONS-TRANSFER STUDENTS

Students wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) must be eligible to return to the institution last attended and (2) must have attained at least a "C" average (2.0 on 4.0 system) based on all courses attempted at all institutions attended. Transfer students with less than 24 semester hours (or 36 quarter hours) of transferable credit must also meet the freshman entrance requirements.

Students seeking admission by transfer of credits are required to have all transcripts of previous college or university work forwarded to the Office of Admissions by the Registrar of each institution they have attended. Even though no transfer of credit may be involved, all previous college or university work must be certified by transcripts or records of attendance. **An official high school transcript or GED must also be submitted.**

Application Procedure for Transfer Students

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form by the application deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Submit a completed University questionnaire. This questionnaire is included in the transfer admissions packet.

3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that the Registrar of each institution attended send an official transcript directly to the Office of Admissions by the application deadline date.

4. Have an official high school transcript or GED, including test scores, sent to the Office of Admissions by the application deadline date.

Official credit evaluation of transcripts will be done after admission when confirmation card is returned by student.

ADMISSIONS-NURSING, BUSINESS ADMINISTRATION, EDUCATION

Admission to the Bachelor of Science Degree Programs in Nursing or Business Administration, and the Bachelor of Arts Degree Program in Education requires application to and acceptance by the School of Nursing, School of Business, or School of Education in addition to acceptance by the University.

ADMISSIONS-FORMER STUDENTS (Re-enrolling)

Former UNCW students who wish to return to the University must apply to the Office of Admissions for readmission prior to July 1 for the fall semester or November 1 for the spring semester. Those who have attended another college or university since their last enrollment at UNCW are required to submit official transcripts from such institutions before they can be considered for readmission.

The Three-year Rule

Any UNCW degree student who has been out of school for at least three years and has not attended any other institution since leaving UNCW is eligible to re-enter under the "three-year rule." Any former student of an accredited college or university who has not attended school for at least three years is also eligible to enter UNCW under the "three-year rule."

The student who elects to have the three-year rule applied will have neither a quality point deficit to overcome, nor hours of credit for those courses in which "D" grades were attained. Only courses in which a grade of "C" or better was earned will be counted toward graduation. Nevertheless, this option will not alter the student's original academic record. The quality point average will begin at the time studies are resumed, and the student will be required to maintain a "C" average on a semester basis to be eligible to continue. Degree requirements will be those in effect at the time the student reenrolls.

The three-year rule option must be exercised at the time the student applies for admission to the University. Once exercised, it may not later be reversed.

ADMISSIONS-UNCLASSIFIED STUDENTS

Individuals may enroll in the University as unclassified students by meeting the appropriate requirements for admission as stated below:

1. A transfer student who has not been enrolled in an institution of higher education for at least one year and who has not been academically suspended within the last three years may apply for admission as an unclassified student.
2. A high school graduate who has not attended an institution of higher education and has been graduated at least two years may apply for admission as an unclassified student.

3. Official college transcripts (transfers) and high school transcript or GED (transfers *and* freshmen) must be sent to the Office of Admissions by the application deadline date.

Students who enroll as unclassified students may take any undergraduate course as long as the prerequisite listed in the course description is honored. Unclassified students are limited to two courses per semester or summer term. **An unclassified student may apply for admission as a degree candidate upon completing a minimum of 15 semester hours with a "C" average on all work attempted.** The student must complete English 101-102 and three semester hours of basic mathematics with a "C" or better before being considered for admission as a degree candidate. An unclassified transfer student who has completed English 101-102 and three semester hours of basic mathematics with a "C" or better will be considered as having met this requirement.

To avoid delay in having applications considered for change- over admission as degree candidates, unclassified students are advised to apply prior to the application deadline established for the semester. The maximum number of hours allowed students in the unclassified category is 30 semester hours. When this limit is reached, the student must be eligible to apply for admission consideration as degree candidates or terminate their enrollment at the University.

Unclassified students are subject to the academic regulations of the University as applicable.

ADMISSIONS-SPECIAL STUDENTS

Any individual who already possesses a college degree and wishes to enroll for an undergraduate course at UNCW or any individual with a degree who wishes to work toward a second baccalaureate degree must apply to the Office of Admissions before the application deadline date.

ADMISSIONS-PERMISSION/VISITING STUDENTS

During the summer session, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities must obtain prior written approval from their dean to take courses at UNCW. The University assumes no responsibility in determining a student's course selection when such credits are to be transferred elsewhere. Summer visitor applications and schedules are available by February of each year from the Office of Special Programs. Enrollment by permission from another institution in no way obligates the University to continue one's enrollment at UNCW after the expiration of the permission period. A student may not continue to attend as a permission/visitor student beyond two consecutive summer sessions. To apply for fall or spring semester visitor status, transfer requirements must be met.

ADMISSIONS-SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at UNCW if they meet the qualifications for participation in this program. Because of distance, this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer terms. Application deadline dates must be honored.

ADMISSIONS-INTERNATIONAL STUDENTS

The University of North Carolina at Wilmington welcomes interest and inquiry from international students. In addition to meeting regular freshman or transfer academic admission requirements, international students must present evidence of their ability

to speak, read, and write the English language and to meet fully the financial obligations associated with their study at the University. Students from foreign countries must present the results of the TOEFL examination (Test of English as a Foreign Language) as a part of their application for admission. A financial responsibility statement must also be submitted. All materials for admission consideration must be in the Office of Admissions at least three (3) months prior to the date of registration for the entering semester or term. It is recommended that international students plan to begin their studies in a fall semester.

ADMISSIONS-SENIOR CITIZENS

Residents of North Carolina age 65 or older who meet applicable admission requirements may enroll tuition free on a space available basis. The availability of class space cannot be determined until after registration.

ADMISSIONS-AUDIT STUDENTS

Students who wish to take courses without receiving credit should apply to the Office of the Registrar immediately after the semester registration date. Audit students are admitted on a "space-available" basis.

ADMISSIONS-GRADUATE STUDENTS

All inquiries concerning admission to graduate programs should be directed to the Office of Graduate Studies. Admissions requirements are stated in the Graduate Studies section.

NONDISCRIMINATION POLICY

UNCW is dedicated to equality of opportunity within its community. Accordingly, UNCW does not practice nor condone discrimination in any form against students, employees, or applicants on the grounds of race, color, national origin, religion, sex, age, handicap or veteran status. UNCW commits itself to positive action to secure equal opportunity regardless of those characteristics. For additional information, contact the Federal Compliance Officer.

SAFETY AND HEALTH PROGRAM

UNCW's safety program complies with the State Occupational Safety and Health Act of 1973.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the University.

FRESHMAN ADMISSION REQUIREMENTS

for

The University of North Carolina at Wilmington

The Fall 1988 Semester

The requirements for Freshman admission to The University of North Carolina at Wilmington for the Fall 1988 semester are:

(1) A diploma from an approved or accredited high school or a GED Certificate.

(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).

(3) An overall "C" average on all work attempted in grades 9-12.

(4) The following specific high school units:
4 units in college preparatory English
*2 units in one foreign language
3 units in mathematics (Algebra I, Algebra II and Geometry)
2 units in social studies (a unit in U.S. History and a unit in government and economics) 3 units in science (including a unit in a life or biological science and a unit in a physical science; at least one laboratory course)

Students are strongly encouraged to take a foreign language course unit and a mathematics course unit in the 12th grade.

*Students who meet all the minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they are graduated with the baccalaureate degree from UNCW.

EXPENSES

EXPENSES

The Board of Governors of The University reserves the right to change the charges for tuition fees and the room and board rate at any time without prior notice.

TUITION AND FEES (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full Time Charges Per Semester

	In-State Students	Out-of-State Students*
Tuition	$205.00	$1,628.00
Fees	198.50	198.50
Total	$403.50	$1,826.50

Other fees:

Application Fee (to accompany application, nonrefundable)	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase thesemester charges shown above. These fee courses are indicated inthe course schedule for each semester.

Undergraduate students registering for 12 or more semester hours will be charged at the full-time rate as shown above. Students scheduling fewer than 12 semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
1 - 5	$ 95.50	$ 450.50
6 - 8	269.50	980.50
9 - 11	353.50	1,419.50

*See information on residency at the end of this section.

The privileges of students taking fewer than six hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $15.00 per semester, these students will be entitled to use all physicale ducation facilities which are available to full-time students.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full prior to preregistration or registration for a new term.

ON-CAMPUS LIVING

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,105.00
Room and Board:	21 meals	$1,130.00

Three meal plans are available for apartment students. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,192.50
Apartment and Board:	15 meals	$1,217.50
Apartment and Board:	21 meals	$1,242.50

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

An advance room reservation deposit of $100.00, to be applied to the room and board account, must be remitted by each applicant, along with the complete application for room and board.

Those interested in obtaining information should contact:

Housing Office
The University of North Carolina at Wilmington
601 South College Road
Wilmington, North Carolina 28403-3297

SUMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

REFUNDS-TUITION

A student who officially withdraws from the University on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid.

Students withdrawing from the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to complete withdrawals from UNCW: If you simply reduce your course load after the Drop/Add period, you will receive NO refund or reduction of fees whatsoever.

REFUNDS-FINANCIAL AID

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

REFUNDS-HOUSING

Housing arrangements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except asprovided for below:

1. New Students (Incoming Freshment and Transfers) - If a new student, after remitting the deposit and being accepted to on-campus housing, decides not to live on campus and gives notice of this decision **in writing** by May 17, 1986 in the case of application for the fall semester, or at least one month prior to the semester in case of the application for the spring semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for refund received after May 17, 1986 will be denied and the $100.00 deposit forfeited. This condition also applies to students remitting the deposit and being accepted to on-campus housing after May 17, 1986.

2. Returning Students (Students currently or previously enrolled at UNCW) - The $100.00 housing deposit is "non-refundable" to returning students after being accepted to on-campus housing. (Exceptions being marriage, transfering to another institution or withdrawal from UNCW - less $25.00 administrative fee). Notification must be received in the Housing Office, **in writing,** by May 17, 1986.

3. Room rent for either semeter will not be refunded once a student officially moves into a residence hall/apartment.

4. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

RESIDENCE STATUS FOR TUITION PURPOSES

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the instituion of that statement to be conditioned by the following:

Residence. To qualify as a resident for tuition purposes, a person must become a legal resident and remain a legal resident for at least 12 months immediately prior to classification. Thus, there is a distinction between legal residence and residence for tuition purposes. Furthermore, twelve months legal residence means more than simple abode in North Carolina. In particular it means maintaining a domicile (permanent home of indefinite duration) as opposed to "maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education." The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification, who must show his or her entitlement by the preponderance (the greater part) of the residentiary information.

Initiative. Being classified a resident for tuition purposes is contingent on the student's seeking such status and providing all information that the institution may require in making the determination.

Parents' Domicile. If an individual, irrespective of age, has living parent(s) or court-appointed guardian of the person, the domicile of such parent(s), or guardian is, prima facie, the domicile of the individual; but this prima facie evidence of the individual's domicile may or may not be sustained by other information. Further, nondomiciliary status of parents is not deemed prima facie evidence of the applicant child's status if the applicant has lived (though not necessarily legally resided) in North Carolina for the five years preceding enrollment or re-registration.

Effect of Marriage. Marriage alone does not prevent a person from becoming or continuing to be a resident for tuition purposes, nor does marriage in any circumstances insure that a person will become or continue to be a resident for tuition purposes. Marriage and the legal residence of one's spouse are, however, relevant information in determining residentiary intent. Furthermore, if both a husband and his wife are legal

residents of North Carolina and if one of them has been a legal resident longer than the other, then the longer duration may be claimed by either spouse in meeting the twelve-month requirement for in-state tuition status.

Military Personnel. A North Carolinian who serves outside the State in the armed forces does not lose North Carolina domicile simply by reason of such service. And students from the military may prove retention or establishment of residence by reference, as in other cases, to residentiary acts accompanied by residentiary intent.

Grace Period. If a person (1) has been a bona fide legal resident, (2) has consequently been classified a resident for tuition purposes, and (3) has subsequently lost North Carolina legal residence while enrolled at a public institution of higher education, that person may continue to enjoy the in-state tuition rate for a grace period of twelve months measured from the date on which North Carolina legal residence was lost. If the twelve months end during an academic term for which the person is enrolled at a State institution of higher education, the grace period extends, in addition, to the end of that term. The fact of marriage to one who continues domiciled outside North Carolina does not by itself cause loss of legal residence, marking the beginning of the grace period.

Minors. Minors (persons under 18 years of age) usually have the domicile of their parents, but certain special cases are recognized by the residence classification statute in determining residence for tuition purposes.

(a) If a minor's parents live apart, the minor's domicile is deemed to be North Carolina for the time period(s) that either parent, as a North Carolina legal resident, may claim and does claim the minor as a tax dependent, even if other law or judicial act assigns the minor's domicile outside North Carolina. A minor thus deemed to be a legal resident will not, upon achieving majority before enrolling at an institution of higher education, lose North Carolina legal residence if that person (1) upon becoming an adult "acts, to the extent that the person's degree of actual emancipation permits, in a manner consistent with bona fide legal residence in North Carolina" and (2) "begins enrollment at an institution of higher education not later than the fall academic term following completion of education prerequisite to admission at such institution."

(b) If a minor has lived for five or more consecutive years with relatives (other than parents) who are domiciled in North Carolina and if the relatives have functioned during this time as if they were personal guardians, the minor will be deemed a resident for tuition purposes for an enrolled term commencing immediately after at least five years in which these circumstances have existed. If under this consideration a minor is deemed to be a resident for tuition purposes immediately prior to his or her eighteenth birthday, that person on achieving majority will be deemed a legal resident of North Carolina of at least 12 months duration. This provision acts to confer in-state tuition status even in the fact of other provisions of law to the contrary; however, a person deemed a resident of 12 months duration pursuant to this provision continues to be a legal resident of the State only so long as he or she does not abandon North Carolina domicile.

Lost but Regained Domicile. If a student ceases enrollment at or graduates from an institution of higher education while classified a resident for tuition purposes and then both abandons and reacquires North Carolina domicile within a 12-month period, that person, if he or she continues to maintain the reacquired domicile into re-enrollment at an institution of higher education, may re-enroll at the in-state tuition rate without having to meet the usual 12-month durational requirement. However, any one person may receive the benefit of this provision only once.

Change of Status. A student admitted to initial enrollment in an institution (or permitted to re-enroll following an absence from the institutional program which involved a formal withdrawal from enrollment) must be classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual enrollment. A residence status classification once assigned (and finalized pursuant to

any appeal properly taken) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic year.

Transfer Students. When a student transfers from one North Carolina public institution of higher education to another, he or she is treated as a new student by the institution to which he or she is transferring and must be assigned an initial residence status classification for tuition purposes.

The initial classification of undergraduate students as in- state or out-of-state residents for tuition purposes is made by the Admissions Office. Appeals for in-state status may be made to the campus appeals body, Out-of-State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available for inspection upon request in the Admissions Office and in the Student Affairs Office.

FINANCIAL AID

FINANCIAL AID

The UNCW Financial Aid Office administers a program of financial aid which seeks to meet the needs of all enrolled students. While the program provides for the recognition of talent and outstanding student achievement, the program strives primarily to assist students with demonstrated financial need. It is our aim that no student be denied the opportunity to enroll or continue his education because of financial circumstances. The operation of the program is based upon a concept of needs-analysis that expects a student's family to meet educational expenses as completely as possible. The difference between the full cost of attendance and the determined amount of family contribution constitutes our definition of financial need. It is this calculated need which determines the amount of assistance an applicant receives.

To apply for financial aid a student must complete a Financial Aid Form provided by the College Scholarship Service and an institutional Financial Aid Application. Both forms are available in the UNCW Financial Aid Office. Questions concerning the financial aid program at UNCW should be directed to the Financial Aid Office, The University of North Carolina at Wilmington, 601 S. College Rd., Wilmington, N.C. 28403–3297, (919) 395-3177.

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general **Minority Presence Grant Program,** black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

AMERICAN INDIAN STUDENT LEGISLATIVE GRANT

The General Assembly of North Carolina has provided funds for a number of grants to needy resident North Carolina Indian students. Eligibility is limited to degree students who maintain cultural identification as an American Indian through membership in an Indian tribe recognized by the State of North Carolina or by the federal government or through other tribal affiliation.

GRANTS

Pell Grants provide federal grants for students who show need for assistance in attending college. This grant covers the period required to complete the first undergraduate baccalaureate degree as long as the student maintains satisfactory progress. Students must be enrolled for at least six hours and must be in good academic standing. In addition, a student must be a U.S. citizen or in the United States for other than a temporary purpose. Awards are based on demonstrated financial need which is determined by a national formula applied uniformly to all applicants. The Pell Grant Special Condition Form is recommended for use by applicants whose financial circumstances have changed significantly since 1985. The death of a parent or spouse, the complete loss of employment or the divorce or separation of parents are examples of such changes. In such circumstances, the Special Condition Form should be filed instead of the Financial Aid Form.

The Supplemental Educational Opportunity Grant Program provides aid to students who show need for assistance in attending college. Supplemental grants range in value from $200 to $2,000 per year, with the cumulative maximum of $4,000. To be eligible for a grant at UNCW, a student must be enrolled for at least 12 hours and must be a citizen or permanent resident of the United States. The application and Financial Statement must demonstrate exceptional financial need.

The North Carolina Student Incentive Grant Program is administered by College Foundation, Inc., for legal residents of North Carolina accepted or enrolled full-time and in good standing in an undergraduate program of study. Students must demonstrate "substantial financial need" as determined through the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of American College Testing Program. Students should see that the completed Financial Statement is sent with the processing fee as soon after January 1 as possible, but not later than March 15; late filers will be considered if funds are available.

UNCW Grants provide needy and worthy students with awards which cover tuition costs. To be eligible for one of these grants a student must be enrolled for at least 12 hours and have at least a 2.0 grade point average. Competition for these grants, however, generally results in higher grade point requirements.

Athletic Grants-In-Aid are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the Director of Athletics.

The North Carolina National Guard Tuition Assistance Program is a state funded Tuition Assistance Program for active members of the North Carolina Guard. This program willl pay the cost of tuition per academic year for a maximum of four years. For additional information contact:

Office of the Adjutant General
North Carolina National Guard
Attn.: AGRR
P.O. Drawer 26268
Raleigh, N.C. 27611
(919) 733-3770—Ext. 175

GENERAL SCHOLARSHIPS

UNCW Scholarships are awarded to students for talent and outstanding achievement. These scholarships are equal to the cost of tuition and are awarded through the Financial Aid Office by various departments, organizations, and campus publications.

The Lucille Murchison Marvin Scholarship is awarded each year to two students at UNCW who have a grade point average of at least 3.0 and who demonstrate scholarship ability and financial need.

The Eliza Collins Scholarship is awarded yearly to several students who demonstrate scholastic ability and need.

The Henry Harrell, Sr., and Alma M. Harrell Scholarship is awarded annually to students who have a grade point average of 3.0 or better and have an exceptional financial need.

The C. M. and M. D. Suther Scholarship is awarded annually to deserving high school graduates who would not otherwise be able to attend college. The scholarship amount will be approximately $950.00 annually.

The Devereux Haigh Lippitt Scholarship is awarded annually to a North Carolina student based on academic achievement. This scholarship covers the in-state cost of tuition and fees and is given in memory of Mr. Devereux Haigh Lippitt by his family.

The Elizabeth Dudley Urquhart Memorial Scholarship Fund provides a tuition and fees scholarship to an academically talented student who demonstrates financial need. The recipient must have completed the last two years of high school in a New Hanover County Public school.

The Alumni Association Academic Scholarship Program provides annual, renewable in-state tuition and fees scholarships based on academic achievement and potential. Students must be classified as North Carolina residents for tuition purposes. Applications, secured from the UNCW Alumni Affairs Office, must be completed and returned to that office by March 15.

The Army ROTC Scholarship. The Department of Military Science annually awards a two and a three year Army Scholarship to a UNCW student majoring in Math or Science. The scholarship pays all tuition and fees, plus $100.00 a month for subsistence. The recipient must qualify academically and physically. Other scholarships are available through national competition. For information contact the chairman of the Military Science Department.

The Rotary Club of Wilmington provides an annual tuition and fees scholarship to an undergraduate applicant who demonstrates academic strength, good character traits, and financial need.

The Wilmington Business and Professional Women USA Scholarship of $1,000 is awarded annually to a female student who plans to pursue a business or professional career. Applicants must demonstrate financial need, academic achievement, and clearly stated educational goals. Applications may be obtained from the Financial Aid Office.

The Wilmington Woman's Club Scholarship is awarded to a New Hanover County high school graduate who demonstrates academic achievement and financial need. A recipient may continue to receive this scholarship if a 3.0 grade point average is maintained.

COLLEGE OF ARTS AND SCIENCES SCHOLARSHIPS

The Department of Biological Sciences annually awards three scholarships. The **Herbert Mintzes Memorial Award** is made to the rising sophomore with the highest standing in the sequence of introductory biology courses (BIO 205, 206, 207); the recipient is chosen by the course instructors. The **Dovie P. Bowden Scholarship** is awarded to a student of junior standing on the basis of scholarship and need; eligible students should contact the department chairman to apply. The **Franklin H. Allen Scholarship** is awarded to a rising senior on the basis of grade point average and other evidence of achievement; the recipient is chosen by a faculty committee.

Cape Fear Industries Scholarship is awarded to a chemistry major at UNCW who has a high grade point average. Interested students should contact the Department of Chemical and Physical Sciences.

The LAQUE Scholarship is an annual scholarship awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairman of the Department of Chemical and Physical Sciences.

American Society for Qualified Control Scholarship. The Wilmington section of the American Society for Quality Control has established an academic scholarship for a rising senior majoring in math with a strong background in statistics or for a rising senior in the field of business. The amount of the award will be the equivalent of in-state tuition for two semesters. Interested applicants should contact the chairman of the Department of Mathematical Sciences.

The Helena R. Cheek Memorial Scholarship is awarded by the Department of Modern Languages to a student who demonstrates special ability in the area of foreign language study and overall academic excellence. This scholarship is given in memory of Helena R. Cheek by her family and friends.

The William F. Adcock, Jr., Music Scholarship is awarded to a student who plans to graduate from UNCW with an emphasis in music and who has no more than 36 hours to complete for graduation. The award will be based upon overall excellence in music, above-average academic record and acceptable performance standards.

The J. Rupert Bryan Scholarship is awarded to a political science major with financial need. Candidates must be able to demonstrate creativity, curiosity, and academic worthiness.

The James E. L. Wade Scholarships in History and Political Science are awarded to high school seniors who have a B average or above on high school work, an interest in history or political science as a major, and financial need. For additional information, contact the appropriate department chairman.

The R & E Electronics Scholarship is an annual scholarship awarded primarily to a minority sophomore student in pre-engineering studies who graduated from a North Carolina high school. The scholarship is based on academic ability and financial need.

CAMERON SCHOOL OF BUSINESS SCHOLARSHIPS

The W. A. Corbett Scholarship is awarded annually to a junior or senior in the Cameron School of Business Administration with a grade point average of 3.0 or better who is planning a career in the field of business. For information and application forms, contact the Office of Financial Aid or the Dean of the Cameron School of Business Administration.

Scholarships available for students who have completed the sophomore year (58 semester hours) include:

The William S. Holland Scholarship for accounting majors, established in honor of William S. Holland, retired partner of Cherry, Bekaert and Holland, Certified Public Accountants, and a member of the first graduating class of Wilmington College, is awarded annually. For information and application forms, contact the chairman of the Department of Accountancy.

The Cape Fear Traffic Club Scholarship, established for students studying in the field of marketing with particular emphasis on transportation/distribution, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The Lower Cape Fear Personnel Association Scholarship, established for students planning to concentrate in the study of management, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The Sales and Marketing Executives International Association (Cape Fear Chapter) Scholarship, established for students concentrating in the study of marketing, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

SCHOOL OF EDUCATION SCHOLARSHIPS

Ann Durant Walker Scholarship Award—The Alpha Psi Chapter of Alpha Delta Kappa awards a scholarship to a junior or senior majoring in Special Education. The scholarship is given in memory of Ann Durant Walker who helped develop the Special Education Program in New Hanover County.

The Sue McCall Boone Scholarship for education majors was established to provide a scholarship for a New Hanover County student who demonstrates a financial need at UNCW. The scholarship is named in honor of Miss Sue Boone, New Hanover educator, who contributed over 50 years of service in the community. The scholarship is awarded to one student biennially in the amount of tuition.

SCHOOL OF NURSING SCHOLARSHIPS

The Medical Auxiliary Scholarship is awarded to a nursing student, second-or third-year medical technology student, or junior or senior pre-medical student who is a resident of New Hanover, Pender, or Brunswick County and who demonstrates financial need and scholastic ability.

The Forty and Eight Nursing Scholarship is an academic scholarship established by Voiture 245, the Forty and Eight of American Legionnaires, in joint memory of Voyageur Militaire John H. McInnis and Miss Dorothy Dixon, and is open to nursing

students who graduated from high school in New Hanover, Pender, or Brunswick County.

The Ministering Circle of Wilmington awards scholarships on the basis of scholastic ability, financial need, and recommendation, to students accepted in the School of Nursing at UNCW.

The Juanita Borneman Memorial Scholarship, awarded to a student from rural North Carolina, approximates the cost of tuition.

The Billie Burney Memorial Scholarship, started by family and friends of the late Billie Burney, is awarded annually as a tuition scholarship to a student in the field of nursing.

The Louise Ogden Wright Nursing Scholarship is a $500 scholarship given annually by Mrs. Andrew Harriss in memory of her mother. The recipient is selected on the basis of financial need, academic record, and professed intention to pursue nursing as a career.

The Theresa Bentsen Memorial Nursing Scholarship is awarded to a nursing student demonstrating financial need and proved academic and clinical achievements. Applicants must be graduates from N. C. high schools and present an overall grade point average of at least 2.5.

EMPLOYMENT

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least 12 hours and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

The Institutional Work Program, also known as the Work Assistant Program, makes funds available for campus jobs for students. These funds are allocated to departments with the selection of student work assistants controlled by those departments. Students receiving any type of financial aid must receive clearance through the Financial Aid Office before accepting work positions under this program. Students interested in the program should direct inquiries to the department in which they prefer to work.

Off-Campus Employment is coordinated by the Career Planning and Placement Center. The office publicizes specific job openings, makes individual referrals, announces recruiting visits, and keeps on file company literature, information about public and private schools, and state and federal government opportunities. Students interested in using the services of this office should register with the Career Planning and Placement Center to establish a credentials file.

LOANS

The National Direct Student Loan Program, a campus based program, provides needy students with long-term, low interest loans for educational expenses. Under this program, students borrow money to finance their college education and repay the loan after graduation. Repayment begins six months after graduation or withdrawal from school, and the borrower may take up to ten years to repay the loan. The interest rate is five percent and does not begin accruing until six months after graduation or withdrawal from school. All or part of the loan can be cancelled by teaching or military service. To be eligible for an NDSL loan at UNCW, a student must be enrolled for at least 12 hours and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

The North Carolina Insured Loan Program provides students who are North Carolina residents with long-term, low-interest loans. Under this program, the student borrows from College Foundation, Inc., and repays the loan after graduation or withdrawal from school. The interest rate is eight percent and begins to accrue after grad-

uation or withdrawal from school. Applicants can qualify for loans if they show financial need. Application for the North Carolina Insured Loan should be made directly to College Foundation, Inc., 1307 Glenwood Avenue, Raleigh, N.C. 27605. The maximum amount that a dependent undergraduate student may borrow is $2500 per academic year; and independent undergraduate student may borrow $3000 per academic year. To be eligible for this program, a student must be enrolled for at least six semester hours.

The Federally Insured Student Loan Program provides assistance to out-of-state students who may be eligible to borrow long-term, low-interest loans through approved lenders in their home states. This program is essentially the same as the N.C. Insured Loan Program. Addresses for these agencies may be obtained from the Financial Aid Office.

The North Carolina Prospective Teachers Scholarship-Loan Program provides assistance to prospective North Carolina teachers. The program provides a $2000-per-year loan which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction. Inquiries regarding the program should be directed to N.C. Prospective Teachers Scholarship Program, State Department of Public Instruction, Raleigh, N.C. 27611. To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The North Carolina Student Loan Program for Health, Science and Mathematics provides financial assistance to North Carolina residents who demonstrate need as determined by the Board for Need-Based Medical Student Loans. Loans are available for study in the medical fields, mathematics and science programs that lead to a degree. Additional information can be obtained by writing to

The Student Loan Program
116 West Jones Street, Room 279
Administration Building, Suite 279
Raleigh, North Carolina 27611

ACADEMIC CONSIDERATIONS

Time Limitation Policy for Determining Eligibility for Financial Aid

A student is allowed up to two additional years beyond the traditional four-year track to complete the undergraduate degree. Any semester in which he or she registers and does not withdraw within the formal drop-add period will be counted, regardless of student's financial status.

Additionally, a student is determined to be no longer eligible for Federal Pell Grant Program once the required hours for graduation have been met. This is true regardless of whether or not the student applies for graduation.

Satisfactory Progress

To be eligible to receive or to remain eligible to receive financial aid funds, undergraduates must maintain "satisfactory progress" in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of the regular academic year.

Standard one requires that full-time students must demonstrate successful completion of 20 hours for the academic year (approximately one-sixth of total hours required for graduation); less than full-time students must complete 10 hours (approximately one-twelfth of total hours required for graduation). In the case of a student who changes his or her enrollment status from fall to spring semester, the hours which must be completed will be averaged. **Standard two** involves a qualitative measurement, as shown in the following chart establishing grade standards for hours attempted.

DEGREE STUDENTS		UNCLASSIFIED STUDENTS	
Hours Attempted	**GPA**	**Hours Attempted**	**GPA**
6 - 26	1.2	1 - 6	1.2
27 - 58	1.5	7 - 12	1.5
59 - 88	1.8	13 - 18	1.8
89 or more	2.0	19 - 27	2.0

NOTE: Students enrolled under the three-year rule will be required to meet a minimum 2.0 GPA each term and meet the quantitative measurement of standard one.

The standards of progress outlined for financial aid recipients are not applicable for purposes of continued enrollment, since such determinations will be made by the University in accordance with institutional policy.

A preliminary review will be made at mid-year (following fall semester) to identify those students not meeting the required academic standards. Full-time students not successfully completing at least 10 hours, and less-than-full-time students not completing at least 5 hours will be determined deficient. Students not meeting the academic requirements outlined on the retention chart will be issued a warning. Financial aid recipients who fail to meet both standards at the end of the spring semester will lose their continuing eligibility as aid candidates for subsequent periods of enrollment.

Eligibility lost due to shortage of hours can be regained by successfully completing at least 10 hours plus the number short (for full-time students) or at least 5 hours plus the number short (for less than full-time students) during the regular term. Eligibility lost due to failure to meet academic requirements can be regained by bringing the G.P.A. up to the standards outlined on the retention chart.

Students terminated from aid because of failure to meet satisfactory progress standards may appeal when mitigating circumstances exist. A student who through appropriate administrative review of mitigating circumstances is authorized to continue with his or her studies on a conditional basis is considered to meet the requirements of satisfactory progress.

Transfer Students

Each newly-enrolling student, whether freshman or transfer, is initially assumed to be making satisfactory progress. Additionally, the number of hours accepted as transfer hours will be used to place the student within the time frame allowed to complete the undergraduate degree.

Veterans Services

Veterans Services are administered under the umbrella of Student Financial Aid at UNCW. Services provided include peer and professional counseling, remedial and tutorial services, and certification for qualifying veterans and their dependents. The primary concern of Veterans Services is to assist students, monitor their course work, and insure that individuals utilizing veterans benefits keep in line with their prescribed curriculum and successfully complete their desired educational objective.

All veterans and dependents receiving V.A. Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule. Any change in the veteran's course of study should be cleared with the veteran's counselor in the Financial Aid Office to insure continuation of benefits. Transfer students are reminded that the office must have copies of all transcripts before certification can be made to the Veterans Administration for payment

In determining eligibility for V.A. educational funds, the chart on this page will apply to all veterans and dependents using G.I. Benefits for their training at this University. Any full-time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his or her quality point standing.

STUDENT AFFAIRS

STUDENT AFFAIRS

The basic mission of the Division of Student Affairs is to encourage student use of personal, institutional, community, and other resources toward the goals of indiviidual development, self-fulfillment, and a responsible citizenship. Its programs and services are directed toward assisting students in their educational and personal development.

DEAN OF STUDENTS OFFICE

The Dean of Students Office serves as the primary focal point for addressing student needs, issues and concerns, and serves as a resource and referral office for all faculty, staff and students. Acting in an advocacy role, the Dean and Associate Dean of Students represent the student perspective to the University community. This office works with all segments of the University to help students develop through opportunities, advice and assistance. Within the Student Affairs Division, the Dean of Students Office provides consultation, new program development and assistance to the Vice Chancellor with special projects. Specifically, the office coordinates orientation for freshmen and transfer students, advises international and non- traditional students, publishes the *Student Handbook and Code of Student Life,* and coordinates the student judicial system and the official withdrawal process from the University for undergraduate students. Additionally, the Dean of Students Office coordinates programs and policy on rape prevention and assistance, alcohol education, and implements developmental programs to meet assessed and perceived student needs. The Dean of Students Office also provides supervision for the Residence Life Program.

UNIVERSITY UNION

The University Union exists to provide support and give direction to out-of-classroom learning. Based on the philosophy that the process of learning is not confined to the classroom, but instead is a constant and ongoing process, the mission of the Union is to facilitate the educational process by providing a laboratory experience for student growth, and an arena for the development of cultural, social, and recreational awareness. This is accomplished through the administration of the Union facility, its programs and services, by providing resources to student organizations, and serving as the campus's central point of reference in regard to student activities and organizations.

STUDENT DEVELOPMENT CENTER

Counseling and Learning Services

The Student Development Center provides services to help students build satisfying and successful college experiences. Individual and group counseling for personal, career or educational concerns is available. Decision-making resources for careers and college majors include a computer guidance system, aptitude and interest testing, and an information library. Special assistance is offered with learning strategies, study, reading and exam-taking skills. Workshops are regularly scheduled on these topics as well as on personal growth, communication skills and stress management.

The Center acts as a clearinghouse for disabled students' concerns and assists with tutoring, equipment and advocacy needs. The office also administers national testing programs such as the SAT, GRE, GMAT, NTE and MAT.

Consulting and referral services are provided by the Center's staff for university faculty, staff and student groups.

Career Planning and Placement Services

The Career Planning and Placement Service of the Student Development Center provides career planning and placement services to students and alumni of UNCW. Assistance in developing career plans is available through individual advising, work-

shops and seminars. The office also provides information and counseling on careers, specific job requirements, employers, and graduate school programs. Students are encouraged to use these services early in their college career.

The office publicizes specific job openings (part-time, summer and full-time); makes individual referrals; schedules recruiting visits; keeps company literature; and provides information about public and private schools, and state and federal government opportunities.

Seniors should register with the Career Planning and Placement Service early in their final year to establish a credentials file and to avail themselves of all placement services including resume writing, interviewing skills and planning a job search.

STUDENT HOUSING

The University has residence hall facilities for approximately 578 men and 578 women in five modern, conveniently located residence halls. In addition, 400 spaces are available in 13 apartment buildings. All rooms are air-conditioned and furnished, and laundry facilities are available. Residence hall students are required to take their meals in the University cafeteria under a five-day or seven-day plan. Students living in the apartments are required to take a limited meal plan.

RESIDENCE LIFE PROGRAM

The Residence Life Office is responsible for the supervision of all students who reside in the residence halls and the apartment buildings. The basic purpose of the Residence Life Program at UNCW is to create a psychological environment conducive to academic and personal growth and to provide developmental learning opportunities through advising and programming.

FOOD SERVICE

The University operates a modern, air-conditioned cafeteria building. Short-order food service is available in the University Snack Bar located in the University Union. Service is on a cash basis for non-boarding students.

STUDENT HEALTH AND WELLNESS CENTER

The Student Health and Wellness Center (SHWC) located in the Student Support Center is open 8:30 a.m. to 5:00 p.m., Monday through Friday. After 5 p.m. during the week and all weekend, a Wilmington Health Associates physician is on call for urgent or emergency medical care.

The Student Health and Wellness Center (SHWC) provides diagnosis and treatment of general and accute medical problems. The health fee is part of the student fee and entitles students taking 6 or more credit hours* (living on or off campus) to health care services. The SHWC is staffed by a physician assistant, two family nurse practitioners, two nurses, a medical assistant, and the coordinator of health promotion.

In addition to the treatment of general medical problems, the scope of services include: laboratory testing to diagnose a variety of medical problems, allergy injections, gynecologic examinations and counseling, weight control and nutrition counseling, smoking cessation, crisis intervention, and referral as indicated. The Office of Health Promotion provides the wellness resource center (films, books, and pamphlets) as well as opportunities for self- health care, and programming in wellness.

Each newly admitted UNCW student is required to have the following forms on file in the SHWC prior to enrollment: 1.) a completed and up to date Report of Medical History and Physical Examination and 2.) a completed and up to date Immunization Record required by the N.C. Immunization Law (General Statutes 130A-152).

*Students taking less than six hours will be entitled to health care services upon payment of the health fee and will be required to have the above forms on record.

STUDENT HEALTH INSURANCE

The Student Health Fee covers most medical care given at the Student Health and Wellness Center on a prepaid basis. The health fee will not cover the costs if a student requires hospitalization or specialty care. It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents or hospitalization) under their family health insurance contact the SHWC or the Dean of Students Office for information and forms regarding the Student Group Health Insurance Plan available at a nominal cost through the University.

RELEASE OF "DIRECTORY INFORMATION"

The University of North Carolina at Wilmington has routinely made public certain information about its students. Typically, UNCW releases the names of students who are selected by the various honorary societies, receive scholarships, make the Dean's List, hold offices, or are members of athletic teams. The annual commencement program publishes the names of persons who have received degrees from UNCW during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following information: the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The University will make public information about each student limited to these categories in ways such as those described above. Of course, information from all these categories is not made public in every listing.

Students who do not wish to have any or all of such "directory information" made public without their prior consent must notify the Office of the Registrar of this fact in a signed and dated statement specifying items not to be published. This notice must be received by the Office of the Registrar by the end of the registration period for the semester or session of first enrollment or, after an absence, of re-enrollment and by the end of each fall registration thereafter.

STUDENT CONDUCT

The filing of an *application of admission* shall be construed as both an evidence and a pledge that the applicant accepts the standards and regulations of The University of North Carolina at Wilmington and agrees to abide by them. Each student, by the act of registering, is obligated to obey all rules and regulations of the University as stated in the *Student Handbook and Code of Student Life*, the University catalogue and other University publications. The University reserves the right to ask for the withdrawal of any student who refuses to adhere to the standards of the institution.

STATEMENT OF UNIVERSITY POLICIES, PROCEDURES, AND DISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL PROCESS

ADOPTED BY THE BOARD OF TRUSTEES OCTOBER 27, 1970

Section 5-1. Policies Relating to Disruptive Conduct

The University of North Carolina has long honored the right of free discussion and expression, peaceful picketing and demonstrations, the right to petition and peaceably to assemble. That these rights are a part of the fabric of this institution is not questioned.

They must remain secure. It is equally clear, however, that in a community of learning willfull disruption of the educational process, destruction of property, and interference with the rights of other members of the community cannot be tolerated. Accordingly, it shall be the policy of the University to deal with any such disruption, destruction or interference promptly and effectively, but also fairly and impartially without regard to race, religion, sex or political beliefs.

Section 5-2. Definition of Disruptive Conduct

(a) Any faculty member (the term "faculty member," wherever used in this Chapter V, shall include regular faculty members, full-time instructors, lecturers, and all other persons exempt from the North Carolina State Personnel System (Chapter 126 of the General Statutes as amended) who receive compensation for teaching, or other instructional functions, or research at the University, any graduate student engaged in the instructional program, or any student who, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, engages, or incites others to engage, in individual or collective conduct which destroys or significantly damages any University property, or which impairs or threatens impairment of the physical well being of any member of the University community or which because of its viiolent, forceful, threatening or intimidating nature or because it restrains freedom or lawful movement, otherwise prevents any member of the University community from conducting his normal activities within the University, shall be subject to prompt and appropriate disciplinary action, which may include suspension, expulsion, discharge or dismissal from the University.

The following, while not intended to be exclusive, illustrate the offenses encompassed herein, when done for the purpose of obstructing or disrupting any normal operation or function of the University or any of its component institutions: (1) occupation of any University building or part thereof with intent to deprive others of its normal use; (2) blocking the entrance or exit of any University building or corridor or room therein with intent to deprive others of lawful access to or from, or use of, said building or corridor or room; (3) setting fire to or by any other means destroying or substantially damaging any University building or property, or the property of others on University premises; (4) any possession or display of, or attempt or threat to use, for any unlawful purpose, any weapon, dangerous instrument, explosive, or inflammable material in any University building or on any University campus; (5) prevention of, or attempt to prevent by physical act, the attending, convening, continuation or orderly conduct of any University class or activity or of any lawful meeting or assembly in any University building or on any University campus, and (6) blocking normal pedestrian or vehicular traffic on or into any University campus.

(b) Any person engaged in the instructional program who fails or refuses to carry out validly assigned duties, with the intent to obstruct or disrupt any normal operation or function of the University or any of its component institutions, shall be subject to prompt and appropriate disciplinary action under this Chapter V if (but only if) his status is such that he is not subject to the provisions of Section 4-3 of Chapter IV.

Section 5-3. Responsibilities of the Chancellor

(a) When the Chancellor has cause to believe that any of the provisions of this Chapter V have been violated, he shall forthwith investigate the occurrence, and upon identification of the parties involved shall promptly determine whether any charge is to be made with respect thereto.

(b) If he decides that a charge is to be made, he shall, within thirty (30) days after he has information as to the identity of the alleged perpetrator of the offense but in no event more than twelve (12) months after the occurrence of the alleged offense, (i) refer the case to the appropriate existing University judicial body, or (ii) refer the matter to a Hearing Committee drawn from a previously selected Hearing Panel which, under

this option, is requried to implement action for violation of Section 5-2 (a) or (b) of this Chapter. If the case is referred to an existing University judicial body under (i) above, the procedural rules of that body shall be followed, and subsections (c) through (f) below shall not be applicable. If the matter is referred to a Hearing Committee under (ii) above, the procedural rules prescribed in subsection (c) through (f) shall be followed.

(c) The accused shall be given written notice by personal service or registered mail, return receipt requested, stating:

(1) The specific violations of this Chapter V with which the accused is charged.

(2) The designated time and place of the hearing on the charge by the Hearing Committee, which time shall not be earlier than seven (7) nor later than ten (10) days following receipt of the notice.

(3) That the accused shall be entitled to the presumption of innocence until found guility, the right to retain counsel, the right to present the testimony of witness and other evidence, the right to cross-examine all witnesses against him, the right to examine all documents and demonstrative evidence adverse to him, and the right to a transcript of the proceedings of the hearing.

(d) The Hearing committee shall determine the guilt or innocence of the accused. If the person charged is found guilty, the Hearing Committee shall recommend to the Chancellor such discipline as said body determines to be appropriate. After considering such recommendation the Chancellor shall prescribe such discipline as he deems proper. In any event, whether the person is found guilty or not guilty, a written report shall be made by the Chancellor to the President within ten (10) days.

(e) Any person found guilty shall have ten (10) days after notice of such finding in which to appeal to the President of the University. Such an appeal if taken shall be upon the grounds set forth in Section 5.5

(f) Any accused person who, without good cause, shall fail to appear at the time and place fixed for the hearing of his case by the Hearing Committee shall be suspended indefinitely or discharged from University employment.

(g) The Chancellor, unless so ordered or otherwise prevented by courts, shall not be precluded from carrying out his duties under this Chapter V by reason of any pending action in any State or Federal court. Should a delay occur in prosecuting the charge against the accused because the accused or witnesses that may be necessary to a determination of the charge are involved in State or Federal court action, the time limitations set forth in this Section 5-3 shall not apply.

(h) Conviction in any State or Federal court shall not preclude the University or any of its officers from exercising disciplinary action in any offense referred to in this Chapter V.

(i) Nothing contained in this Chapter V shall preclude the President or the Chancellor from taking any other steps, including injunctive relief or other legal action, which he may deem advisable to protect the best interests of the University.

Section 5-4. Aggravated Acts or Threatened Repetition of Acts

(a) The Chancellor of each of the component institutions of the University shall appoint an Emergency Consultative Panel which shall be composed of not less than three (3) nor more than five (5) faculty members and not less than three (3) nor more than five (5) students who shall be available to advise with the Chancellor in any emergency. No member of such Panel shall serve for more than one (1) year unless he be reappointed by the Chancellor. The Chancellor may make appointments, either temporary or for a full year, to fill any vacancies which may exist on the Panel.

(b) If, in the judgment of the Chancellor, there is clear and convincing evidence that a person has committed any of the acts prohibited under this Chapter V which, because of the aggravated character or probable repetition of such act or acts, necessitates immediate action to protect the University from substantial interference with any of its orderly operations or functions, or to prevent threats to or acts which endanger life

or property, the Chancellor, with the concurrence as hereinafter provided of the Emergency Consultative Panel established pursuant to (a) above, may forthwith suspend such person from the University and bar him from the University campus; provided, however, that in the event of such suspension the person suspended shall be given written notice of the reason for his suspension, either personally or by registered mail addressed to his last known addresses, and shall be afforded a prompt hearing, which, if requested, shall be commenced within ten (10) days of the suspension. Except for purposes of attending personally any hearings conducted under this Chapter V, the bar against the appearance of the accused on the University campus shall remain in effect until final judgment has been rendered in his case and all appellant proceedings have been concluded, unless such restriction is earlier lifted by written notice from the Chancellor.

(c) A quorum of the Emergency Consultative Panel provided for in (a) above shall consist of not less than four (4) of its members, and the required concurrence shall have been obtained if a majority of such quorum shall indicate their concurrence. The Chancellor shall meet personally with members of such Panel at the time he seeks concurrence, if it is feasible to do so. However, if the circumstances are such that the Cancellor deems it not to be feasible to personally assemble such members, then he may communicate with them or the required number of them individually by telephone or by such other means as he may choose to employ, in which event he may proceed as provided in (b) above after the required majority of such members have communicated their concurrence to him.

(d) In the Chancellor's absence or inability to act, the President may exercise the powers of the Chancellor specified in this Section 5-4 in the same manner and to the same extent as could the Chancellor but for such absence or inability to act.

Section 5-5. Right of Appeal

Any person found guilty of violating the provisions of this Chapter V by the Hearing Committee referred to in Section 5-3 shall have the right to appeal the finding and the discipline imposed upon him to the President of the University. Any such appeal shall be in writing, shall be based solely upon the record, and shall be limited to one or more of the following grounds:

(1) That the finding is not supported by substantial evidence;

(2) That a fair hearing was not accorded the accused; or

(3) That the discipline imposed was excessive or inappropriate. It shall be the responsibility of the President to make prompt disposition of all such appeals, and his decision shall be rendered within thirty (30) days after receipt of the complete record on appeal.

Section 5-6. No Amnesty

No administrative official, faculty member, or student of the University shall have authority to grant amnesty or to make any promise as to prosecution or non-prosecution in any court, State or Federal, or before any student, faculty, administrative, or Trustee committee to any person charged with or suspected of violating Section 5-2 (a) or (b) of these Bylaws.

STUDENT LIFE

STUDENT LIFE

UNIVERSITY UNION

Student life is enriched at the University of North Carolina at Wilmington by a broad spectrum of activities, most of which occur in or around the University Union. The Union is a 53,000 square-foot facility which opened its doors on March 21, 1983. It houses student organization offices, conference rooms, recreation and games facilities, lounges, study areas, snack bar, rental lockers, the University Information Center, U.S. Post Office, Wachovia Banking Machine, and an assortment of student services. With the guidance of the Office of Student Activities, students are provided opportunities to plan, execute, attend, and evaluate a wide variety of programs and activities. With the belief that education is not bound to the classroom, it is the University Union's goal to educate, entertain and enlighten the University community, while providing a laboratory for student growth and an arena for development of cultural, social and recreational awareness.

STUDENT ACTIVITIES OFFICE

Through the Office of Student Activities, the Union works to expand and complement the student's education by providing support to the approximately seventy student clubs and organizations that are officially registered on campus. the Student Activities Office assists clubs with the planning, execution and evaluation of events and activities that are not only entertaining, but also educational. The Office provides expertise in the areas of leadership development programs, activity programming, contract negotiation, university policy and procedure explanations, budget preparation, and organization development.

UNIVERSITY INFORMATION CENTER

The Information Center, located on the first floor of the University Union, provides a variety of information on campus, student and community activities.

POSTAL SERVICES

A U.S. Post Office, which provides all postal services, is in the University Union. UNCW provides each student with a post office box where all mail (except grades) is delivered. Boxes are located on the first floor of the Union.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the University is the Student Government Association. Officers and at-large senators are elected by the student body, and other senators by classes within the student body.

The association is a democratic organization, permitting expression of student opinion, working for the best interests of the University and upholding a high standard of morals and conduct. It is responsible for the disbursement of half of the student activity fee. This money supports the Student Government Association in its objectives and campus activities. The association is a member of the North Carolina Association of Student Governments.

UNIVERSITY PROGRAM BOARD

The University Program Board coordinates the various student-produced events on campus. It provides a diversified schedule of programs, activities, and events that promote and provide opportunities for educational, social, recreational, and cultural growth for students and the campus community. The UPB is comprised of the following committees: Fine Arts/Lecture, Film-Video, Concert, Coffeehouse, Minority Arts, Residence Life, and Special Events. The board is a member of the National Association for Campus Activities.

STUDENT ORGANIZATIONS

A variety of social, academic, and service organizations enhance student life at UNCW. National sororities and fraternities are established on the campus to recognize students for their leadership and service activities. Several departments in the University have locally and nationally organized groups to stimulate interest in specific areas and to develop professional attitudes. Students are encouraged to contact the Office of Student Activities for specific information relative to a student organization.

PUBLICATIONS

Students are involved in the writing and editing of several University publications.

The Seahawk, the student newspaper, is published weekly. Its staff is composed entirely of students.

The Fledgling, the student-produced yearbook, contains the usual features of a college annual.

The Atlantis, a literary magazine, is published by students each semester.

The Channel Marker is a calendar published yearly to provide information regarding the dates and times of campus events and activities.

The Student Handbook and Code of Student Life are the primary sources of information regarding University regulations and campus life.

The Foram, a student journal, presents current undergraduate research in the sciences.

ATHLETICS

The University holds membership in the National Collegiate Athletic Association and the National Association of Intercollegiate Athletics.

Varsity intercollegiate teams are fielded for men in basketball, cross country, baseball, golf, soccer, tennis, swimming, and water polo. Varsity intercollegiate teams for women are fielded in basketball, softball, tennis, volleyball, swimming, golf, and cross country. Various club sports are also available.

In addition, an intramural sports program is provvided for the student body. The program is based on both a competitive and recreational basis, and participation is voluntary.

PERFORMING ENSEMBLES IN MUSIC

Membership is open to any student who has had instrumental or vocal experience, with the approval of the director of the particular ensemble. Any participant may earn credit. Participation by nonmusic majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

Instrumental Ensembles

The UNCW Wind Ensemble is organized each semester to provide instrumental music experience for those students who desire it. The Wind Ensemble presents at least two concerts per year.

The UNCW Jazz Ensembles perform several concerts on and off campus each semester and perform an annual guest artist spring concert. Development of performance in the jazz idiom is stressed. These groups are open to any student who has had instrumental experience and the approval of the instructor. Auditions for each group are held at the beginning of each semester.

The Wilmington Symphony Orchestra, Inc., rehearses on campus and UNCW students may enroll and receive credit for participating in this group.

Faculty, student and senior recitals are presented free of charge and are open to the public as well as to all students.

The music division also maintains an Electronic Music Studio.

Vocal Ensembles

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the University, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit.

The University Concert Choir and small ensemble, The Chamber Singers, regularly provide music for University functions, appear on radio and television, and act as ambassadors from the University at a wide spectrum of community functions.

The UNCW Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama division.

THE UNIVERSITY THEATRE

The University Theatre is a student-oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potentials of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all University personnel and community residents.

UNIVERSITY READERS THEATRE

The University Readers Theatre provides students with an opportunity to participate in both the performance and technical production of a readers theatre script. Students attend open auditions and may take part in the reading, publicity, lighting, set design and managing of the show.

One major production is usually presented each semester. During semesters when the readers theatre course is offered, class members of that course will comprise the University Readers Theatre troupe. Interested students may inquire further at the Creative Arts Department.

FORENSICS TEAM

The University Forensics Team participates in a number of tournaments each year in addition to hosting the annual Blockade Runner Invitational Tournament on the UNCW campus. Students gain experience in public speaking, interpretation, research and argumentation. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of paintings, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. Student art is often featured. All exhibitions are open to the public without charge.

HONOR SOCIETIES AND AWARDS

THE SOCRATIC SOCIETY

The Socratic Society is an honorary scholastic society formed in 1968 to give special recognition to seniors of outstanding academic accomplishment. It is sponsored by faculty members who belong to the scholastic honorary fraternity Phi Beta Kappa.

Graduating seniors who have completed a minimum of 60 semester hours in the humanities and have attained an overall quality point average of 3.5 may be recommended for election to the society by the faculty of the area in which they are concentrating.

PHI ETA SIGMA NATIONAL HONOR SOCIETY

Phi Eta Sigma is a national college scholastic honor society for freshmen. A member of the Association of College Honor Societies, it was founded at the University of Illinois on March 22, 1923. The University of North Carolina at Wilmington Chapter of Phi Eta Sigma was chartered on March 17, 1979.

The goal of Phi Eta Sigma is to encourage and reward high scholastic attainment among freshmen. At the close of their first academic year freshmen are eligible for membership if they have a cumulative grade-point average of 3.5 or better with no grade lower than "C" on thirty hours or more course work at UNCW.

THE HONOR SOCIETY OF PHI KAPPA PHI

Phi Kappa Phi is an honor society recognizing good character and superior scholarship in all academic disciplines. A member of the Association of College Honor Societies, it was founded at the University of Maine at Orono in 1897. Chapter Number 222 at The University of North Carolina at Wilmington was chartered on May 1, 1980. Seniors and second semester juniors are elected to membership based on class standing and grade point average.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his or her years at the University. The medal is presented each year at commencement.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of The University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in the graduating class.

ADRIAN D. HURST AWARD

Established by Adrian D. Hurst, Emeritus Professor of Mathematics, this award recognizes a UNCW junior or senior math major who has achieved the highest overall academic grade point average. The award is presented each spring in the form of a plaque.

BIOLOGICAL SCIENCES ACHIEVEMENT AWARD

This award was established by the faculty of the Department of Biological Sciences to honor annually the graduating senior biology major who has achieved the highest academic standing. The recipient is identified on a permanent plaque in the Marine Science Building.

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

ACADEMIC REGULATIONS

ACADEMIC REGULATIONS

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fall and spring semesters. Its purpose is to acquaint the student with opportunities and services at the University and to provide information needed for registration. Students are notified by mail of the time to report for the activities involved.

All freshmen, all transfer students, and all students changing from unclassified to degree status are assigned to the General College for advising purposes. Although not assigned to the General College, all unclassified students may receive advising assistance in the Advising Center.

REGISTRATION

Registration is limited to the time period specified in the University calendar of events. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the appropriate dean, to carry a maximum of 21 semester hours.

PREREGISTRATION

Preregistration for students currently enrolled is held each semester. Students who complete preregistration and pay fees by the designated date are registered except in the event that they are declared academically ineligible at the end of the preceding semester.

TRANSFER OF CREDIT

Students transferring from a two-year institution may receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will be included in this total.

Students transferring from a four-year institution may receive up to a maximum of 92 semester hours from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will also be included in this total.

A maximum of 15 semester hours earned through correspondence may be applied toward graduation. Credit earned in another institution with a grade of "C" or better is accepted by the University if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. All grades earned at another institution are entered on the student's record exactly as earned. However, quality points earned at other institutions are not transferable and are not used in computing grade point averages except in the case of students applying to enter the teacher education program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the advanced placement programs of the College Entrance Examination Board. A brochure listing the examinations, required minimum scores, course equivalents, and credits awarded is available through the Registrar's Office or the Office of Admissions. A freshman who scores 3 or above on the Advanced Placement test will receive appropriate college credit and advanced placement. Students taking Advanced Placement tests should have the score reports sent to the Registrar's Office for evaluation concerning placement and credit. Individual departments have determined the specific courses for which credit will be given.

Students who are talented and well-prepared but who have not participated in the Advanced Placement or the College Level Examination programs, may apply to the Student Development Examination programs, may apply to the Student Development Center for tests in these programs. Tests are offered during two scheduled testing periods each year.

Students who have been exempted with credit from courses at an accredited college or university may be exempted with credit from appropriate courses at The University of North Carolina at Wilmington, as outlined in the test brochure. When the exemption is based on a test result, the student should have a copy of the score report sent to the Office of Admissions. In those cases in which a student has demonstrated his knowledge of a particular field by more advanced course work, exemptions may be granted on an individual basis by the appropriate department chairman.

ACADEMIC HONOR CODE

The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the University community are encouraged to report occurrences of dishonesty, honesty is principally the responsibility of each individual.

Academic dishonesty takes many forms, from blatant acts of cheating, stealing, or similar misdeeds to the more subtle forms of plagiarism, all of which are totally out of place in an institution of higher learning. To enforce the policy of academic integrity, to ensure justice, and to protect individual rights, a two court system is employed. Complete details may be found in the *Student Handbook and Code of Student Life* and in the Faculty Handbook.

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student achievement. Grade symbols used are A – excellent, B – good, C – average, D – passing, F – failure, I – incomplete, W – withdrew.

Quality points are assigned as follows: 4 for a grade of "A"; 3 for a grade of "B"; 2 for a grade of "C"; 1 for a grade of "D." No quality points are given for a grade of "I," "F," or "W." The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "I" or "F" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed according to a deadline established by the instructor, not to exceed one calendar year from the end of the semester in which the incomplete was given; otherwise the "I" becomes an "F."

Grade reports are mailed to the student at the end of each semester.

DEAN'S LIST

To be included in the Dean's List at the close of each semester, students must meet one of the following criteria:

(a) Students carrying 12-14 hours must earn a quality point average of 3.5 or better with no grade less than B.

(b) Students carrying 15 hours or more must earn a quality point average of 3.2 or better with no grade less than B.

Students carrying 11 hours or fewer are not eligible for the Dean's List.

WITHDRAWAL POLICY FOR UNDERGRADUATE STUDENTS

A student is allowed to withdraw from the University or from individual courses through the first week of the semester without having a grade entered on the academic record. Inclusive of the second through the sixth week of the semester, any student who withdraws from the University or from individual courses will receive a grade of W. A grade of W will not affect the student's grade point average. Beginning with the seventh week of the semester, a grade of F will be assigned for each course withdrawal.

To withdraw from an individual class or classes, the student must submit a Schedule Revision Form(s) to the Registrar's Office prior to the last day for withdrawal as indicated in the University Calendar of Events. To withdraw from all classes, the student must process an official Withdrawal Form through the Dean of Students Office. If the student is unable to appear in person to withdraw, written notice must be sent to the Dean of Students Office.

Should extenuating circumstances warrant, the grade of F assigned for course withdrawal may be changed to a W. This determination will be made by the Dean of the School or College in which the student is enrolled. It is the student's responsibility to initiate the appeal. The decision of the Dean is final and must be rendered prior to the end of the semester in which the withdrawal occurred.

AUDITING

The auditing of courses without credit is permitted by special permission of the Registrar and of the instructor involved. Individuals not regularly enrolled as students in the University who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees as required for credit course.

REPEATING OF COURSES

Students who receive a grade of "C" or better in a course may not repeat the course but may audit it without credit.

Students who receives a grade of "D" may, with the permission of their academic advisor and the appropriate academic dean, repeat the course once and receive the grade for the course as repeated. However, no additional credit in hours earned toward graduation will be granted.

Students who receive a grade of "F" in a course may, with the permission of their academic advisor and the appropriate academic dean, repeat the course once for credit and a grade.

Course repeat approval forms are available in the Registrar's Office. A student who repeats a course without obtaining prior approval will receive no credit for the course as repeated. The policy became effective with the beginning of the 1985 fall semester.

OFF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, or summer school) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must obtain written approval of the advisor, the department chairman, and the appropriate dean before registering for the course. This permission must be filed in the Registrar's Office on forms supplied by that office.

GRADE APPEAL PROCEDURE

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. Such appeal must be made not later than the last day of the next succeeding regular semester.

1. The student shall present the appeal in writing to the chairman of the department within which the protested grade was awarded. By conferring with the student and the instructor, the chairman will seek resolution by mutual agreement.
2. Failing such resolution the department chairman will transmit the written appeal to the appropriate dean, who will convene the Grade Appeals Committee.
3. The Grade Appeals Committee will consist of the convening Dean and five faculty members appointed by the Dean. If the Committee affirms the instructor's decision, the Dean will notify in writing the faculty member, the student, and the department chairman as appropriate. If the Committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

CLASS ATTENDANCE

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. All faculty members are responsible for setting policy concerning the role of attendance in determining grades for their classes. It is the responsibility of the students to learn and comply with the policies set for each class in which they are registered.

FINAL EXAMINATION POLICY

University policy requires the scheduling of final examinations. Under this policy, the final examination schedule provides a three-hour period for each examination and allows a maximum of three examinations per day. The length of the final examination, up to a maximum of three hours, is at the discretion of the instructor.

The final examination schedule is published at the beginning of each semester. Courses offered during the day have final examinations during the day (two per day). Night courses have final examinations at night (one per night).

A student who is scheduled to take three final examinations in one calendar day may have one rescheduled by notifying the three instructors and the appropriate deans of this desire at least two weeks before the beginning of the final examination period. It will be the responsibility of the three instructors, working with the student, to reschedule one of the examinations and to so inform the student and the appropriate deans at least one week before the beginning of the final examination period.

Rescheduling of a final examination for an entire class may be done only with the approval of the appropriate dean.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in 8 semesters, a student must average 15 to 16 hours per semester. The required number of hours passed for each classification is as follows:

Less than 27 semester hours credit – Freshman
From 27-58 semester hours credit – Sophomore
From 59-88 semester hours credit – Junior
More than 88 semester hours credit – Senior

Retention, Dismissal and Readmission

The University of North Carolina at Wilmington both encourages and requires scholarship. In order to remain at the University, all students must meet the quality point requirements as outlined on the following page.

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
6 - 26	1.2
27 - 58	1.5
59 - 88	1.8
89 or more	2.0

Transfer students are placed in the above retention chart based on total hours transferred from all institutions attended. Transfer students' quality point averages are computed only on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed to make up deficiencies during this University's summer sessions which immediately follow the spring semester in which they were declared ineligible. If such deficiencies are not removed in this manner, students will be dismissed from the University for one semester. Such students may reenroll for any subsequent semester if space is available. Reenrollment, if allowed, is on a probationary basis and students must prove themselves by meeting the required quality point average as outlined in the retention chart. However, reenrolled students who make a 2.0 average or better during the first semester after returning, but who fail to reduce quality point deficiencies to the required level, will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for readmission is restored by completion of sufficient work during the summer sessions at the University of North Carolina at Wilmington.

Students may, through appropriate administrative review of mitigating circumstances, be authorized to continue with their studies on a conditional basis. Written permission must be obtained from the appropriate dean prior to the beginning of the semester in which such students wish to enroll.

Full-time students who fail to pass at least three hours during any semester are subject to academic dismissal for one semester, regardless of quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester. Students who fail to meet this requirement will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the retention table if they wish to continue in the University.

HONORS PROGRAM

A student who has a quality point average 3.2 or better (including all transferred work) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.2 or better quality point average at The University of North Carolina at Wilmington, and who is recommended by the chairman of the area of concentration is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required courses.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program

may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.2 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.2, however, may still receive credit for the honors project.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0. The final 30 semester hours of course credit, including the final 15 semester hours in the concentration, must be completed at The University of North Carolina at Wilmington.

Graduation will be certified at the end of the term in which all academic requirements are complete. Upon completion of all requirements, the student will receive either the Bachelor of Arts or the Bachelor of Science Degree.

Application for graduation must be filed in the Office of the Registrar on or before the dates specified in the University calendar on page 5.

In advising and registering students, the deans, the registrar and faculty advisors try to make certain that every student who intends to graduate from the University registers for those courses which are required for a degree. **The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the University catalogue.**

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the entering catalogue or under any subsequent catalogue, provided all graduation requirements are completed within six years of the expiration date of the catalogue chosen.

REQUIREMENTS FOR A DOUBLE CONCENTRATION

A student may elect to concentrate in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meets all requirements for each concentration. The student who completes requirements for more than one concentration will receive only one degree, but at the time of the initial graduation the record will indicate both concentrations when the completed requirements lead to the same baccalaureate degree.

A student who returns to the University after the initial graduation to complete the requirements for a second concentration may have the additional area of concentration added to the official record upon written notification from the department chairman that all departmental requirements have been satisfactorily met.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree may receive a second baccalaureate degree if it is a different degree and a different concentration by fulfilling the following requirements:

(1) The student must meet all the requirements for the second degree and concentration.
(2) The student must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

DEGREES WITH DISTINCTION

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average of 3.50
Magna Cum Laude for an overall average of 3.70
Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

1. The student must have the required overall average on all work attempted (including any transfer credit).
2. The student must have the required average on work attempted at The University of North Carolina at Wilmington.

Students who complete the Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

TRANSCRIPTS

All students are entitled to one official transcript of their work without charge. Additional copies of the transcript at a cost of $1.00 each may be obtained upon written request to the Office of the Registrar.

INDEBTEDNESS

All indebtedness to the University must be satisfactorily settled before a diploma or transcript of record will be issued.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar of any change in name or mailing address for grades and bills.

DEGREE REQUIREMENTS AND COURSE DESCRIPTIONS

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to the Bachelor of Arts and the Bachelor of Science degrees and graduate programs leading to the Master of Business Administration, Master of Education, and Master of Science degrees. Professional undergraduate programs include those offered in the Cameron School of Business Administration, the School of Education, the School of Nursing and the Medical Technology program in the College of Arts and Sciences. Preprofessional programs are offered in engineering, medicine, dentistry, forestry, law, pharmacy and agriculture. The University has special programs in marine sciences and environmental studies.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Anthropology
Biology
Chemistry
Creative Arts
  Art
  Drama
  Music
Economics
Elementary Education
English
Environmental Studies
French
Geography
Geology
History
Mathematics
Middle Grade Education
Parks and Recreation Mangement
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish
Special Education
Speech Communication

Areas of Concentration for the Bachelor of Science Degree

Accountancy
Biology
Business Mangement
Chemistry
Computer Science
Economics
Finance
Geology
Marine Biology
Marketing
Mathematics
Medical Technology
Nursing
Physics

Area of Concentration for the Master of Business Administration Degree

Business Management and Administration

Areas of Concentration for the Master of Education Degree

Elementary Education
Educational Administration and Supervision
Reading Education
Special Education

Area of Concentration for the Master of Science Degree

Marine Biology

THE GENERAL COLLEGE

The General College ordinarily consists of the first two years of study during which students are expected to fulfill all or most of the University's basic studies requirements as outlined in this University catalogue. All freshmen and transfer students are enrolled in the General College. Upon entering the University, many students do not know which major they will pursue. Courses prerequisite to a major, combined with elective courses, porvide the opportunity to explore several different areas of academic interest. Students who have already chosen their major or professional program will still want to complete, or make satisfactory progress toward completing, basic studies requirements combined with other required courses in their chosen field before transferring from the General College. Also, students with admissions deficiencies are expected to remain in the General College until those deficiencies are made up.

Transfer students who have met the necessary requirements will be referred immediately to the appropriate department within the College of Arts and Sciences. Those who have not met these requirements will be retained in the General College until such requirements have been met. For professional schools or Computer Science, admissions requirements are outlined below.

The General College Advising Program

Each student in the General College receives the personal assistance of a faculty advisor in selecting courses, maintaining required scholastic standards, and planning a complete General College educational program. Every effort is made to place students in classes appropriate to their level of preparation and achievement.

The General College Advising Porgram has over 60 faculty advisors and is responsible for advising all students in the General College. Advising assistance is available in the General College Advising Center, upstairs in Hoggard Hall, from 8 a.m. - 5 p.m., Monday through Friday. Advisors may be seen either on an appointment or a drop-in basis. Advisees are expected to see their advisors before preregistration/registration and before dropping or adding courses or before withdrawing from the University.

Admission to the College of Arts & Sciences

Students reasonably certain of a major within the College of Arts & Sciences (except Computer Science) may request to have their recoreds transferred to the appropriate department toward the end of the second semester of the freshman year. Students still uncertain of a major should remain in the General College during their sophomore year and continue receiving General College advising assistance.

Students planning to major in Computer Science must first:

1. Complete the following courses with a grade point average greater than 2.5:
   - CSC 121 Introduction to Computer Science I
   - CSC 231 Discrete Structures
   - CSC 241 Introduction to Computer Systems & Assembly Languages
   - MAT 161 Calculus with Analytic Geometry
2. Complete a minimum of 44 semester hous with a cumulative grade point average of 2.5 or better (4.0 scale).

(Upon completion of these requirements to major in Computer Science, students may request to have their records transferred to the Department of Mathematical Sciences.)

Admission to the Professional Schools

Students seeking admission to the Cameron School of Business Administration and the School of Education normally would submit their applications to the appropriate

school immediately upon completion of the third semester of study, provided that all minimal requrements as stated in the University catalogue have been met at the time of application.

Students seeking admission to the School of Nursing must submit applications to the Office of the Dean, School of Nursing, after completion or while enrolled in the last semester of prerequisite courses. Application forms and deadline dates are available through the School of Nursing.

I. Requirements for Admission to the Cameron School of Business Administration

1. The following courses must have been successfully completed:

ENG 101-102	Composition
MAT 111	Precalculus I
ACG 201*	Financial Accounting
ECN 221	Principles of Economics (Micro)

2. During the semester of application each applicant must be enrolled in or have successfully completed:

ACG 203 or 204*	Managerial Accounting or Intermediate Accounting I
ECN 222	Principles of Economics (Macro)
BUS 217*	Statistical Analysis
MAT 151	Basic Calculus with Applications I

*ACG 201 and 203 or 204 not required and STT 205 or 215 may be substituted for BUS 217 in the B.A. Economics degree program.

3. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).

II. Requirements for Admission to the School of Education and the Teacher Education Program

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.

3. Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).

4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

III. Requirements for Admission to the School of Nursing—Bachelor of Science Degree Program

1. Minimum overall cumulative GPA of 2.5 or better (on a 4.0 scale) is required for all course work completed at the college or university level.

2. Minimum grade of "C" in each of the following courses or their equivalent:

BIO 240-241	Human Anatomy & Physiology (2 semesters)
CHM 115	Fundamentals of General Chemistry
CHM 215	Organic/Biologic Chemistry
BIO 246	Microbiology of Human Diseases
MAT 111	Precalculus I

3. Completion of all courses prerequisite to the nursing major. (Any foreign language deficiency must have been completed prior to admission to the program).

4. Evidence of satisfactory high school completion or equivalent.

5. Satisfactory physical and emotional health.

Admission Requirements—RN Access Program

In addition to the above requirements, applicants to the RN Access Program need:
1. One year nursing practice.
2. A current license to practice as a registered nurse in North Carolina.

BASIC STUDIES REQUIREMENTS

Basic studies at The University of North Carolina at Wilmington is defined as the acquisition of essential skills and an introduction to the broad spectrum of studies which are basic to our intellectual and cultural heritage. The program is designed to develop skills in comprehension, composition, reasoning and analysis; to introduce students to the structure, methodology and knowledge of academic disciplines; and to address important human concerns from disciplinary or interdisciplinary perspectives.

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must meet the basic studies requirements as outlined below, and in fulfilling these requirements must acquire a total of forty-five (45) semester hours less exemptions.

A. English Composition (6 hours)
Required: English 101 and 102 (3-3)

B. Physical Education (2 hours)
Required: Physical Education 101 (2)

C. Humanities (9-15 hours)
Required: A minimum of nine and a maximum of fifteen hours elected from at least two of the following areas:
Communication 105
English 110, 207, 208, 210, 211, 212, 219, 230, 250
History 101, 102, 201, 202, 237, 261, 273, 275
Modern Languages
French 101, 102, 201, 202, 305, 311, 312, 321, 322
German 101, 102, 201, 202, 305, 321, 322, 350
Spanish 101, 102, 201, 202, 209, 210, 211, 212, 305, 311, 312, 321, 322
Portuguese 101, 102, 201, 202
Philosophy and Religion 101, 103, 110, 115, 201, 202, 205, 215, 230, 232, 235, 236, 242

D. Creative Arts (3-6 hours)
Required: A minimum of three and a maximum of six hours elected from the following areas:
Art 101, 102, 111, 112, 201, 202, 204, 221, 241, 242
Communication 116
Drama 221, 225
Music 085*, 086*, 087*, 105, 115, 116, 117, 118
*(Basic studies credit from Music 085, 086, and 087 may not exceed a total of three semester hours.)

E. Natural and Mathematical Sciences (10-15 hours)
Required: A minimum of 10 and a maximum of 15 hours from the two areas of natural sciences and mathematical sciences as described below:
1. Natural Sciences (4-12 hours)
Required: A minimum of 4 and a maximum of 12 hours, including at least one laboratory science course (starred below), elected from the following:
Anthropology 210
Biology 105*, 205*, 206*, 207, 215*, 235, 236, 237, 238, 240*, 241*
Chemistry 101*, 102*, 103*, 105, 106*, 115*, 215*
Geography 130*, 230
Geology 101*, 102*, 120, 150
Physical Education 216*, 217
Physics 101*, 102*, 105*, 201*, 202*, 260
2. Mathematical Sciences (3-8 hours)
Required: One of the following courses:
Mathematics 101, 111, 112, 115, 141, 151, 161
Additional credit may be earned by electing from the following:
Computer Science 111
Mathematics 102, 112, 142, 151, 152, 161, 162, 275
Philosophy and Religion 218
Statistics 205, 210, 215

F. Social and Behavioral Sciences (3-9 hours)
Required: A minimum of three and a maximum of nine hours elected from the following:
Anthropology 105, 205 (Sociology 205), 206, 207
Criminal Justice 201
Economics 125, 221, 222
Geography 110, 140

Political Science 101, 102, 111, 206, 207
Psychology 105, 145, 220, 323
Social Work 235, 245
Sociology 105, 110, 205 (Anthropology 205) 215, 225

Waiver of Requirements

English:
Students who have not qualified for advanced placement but who because of special circumstances may have writing competencies equal or superior to those required in English 101 or 102, may at the discretion of the chairman of the Department of English take a waiver examination. An acceptable score will waive either or both requirements. This waiver does not grant academic credit.

Mathematics:
Students who have not qualified for advanced placement but who may have competencies equal or superior to those required for successful completion of Mathematics 151 or 161, may at the discretion of the chairman of the Department of Mathematical Sciences take a waiver examination for either of these courses. An acceptable score on this exam waives the requirement that one of the introductory mathematics courses be taken. This waiver does not grant academic credit.

REQUIRED PHYSICAL EDUCATION

Through participation in the required physical education program, students should expect to develop an understanding of the role of life-long physical activity in enhancing the quality of one's life.

The University requires all students to complete with a passing grade Physical Education 101, Foundations of Physical Activity. Transfer students who have not had an equivalent course must also complete this requirement. Handicapped students are encouraged to participate to the full extent possible in physical education activities and are encouraged to consult with the chairman of the Department of Health, Physical Education, and Recreation concerning participation in these activities.

The University requires all students to provide information regarding their current health status on the Report of Medical History form available through the Admissions Office. Completion of this requirement is a prerequisite to:

1) enrollment in any physical education activity course,
2) participation in any intramural activity, or
3) utilization of the physical education facilities for recreational purposes.

Based on the information contained in this report, the student will be assigned to one of three categories listed below:

A. Unrestricted participation
B. Restricted participation
C. Temporarily restricted participation because of an injury or illness.

COURSE DESCRIPTIONS

All undergraduate courses offered in the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing are listed following the appropriate departmental degree requirements. Not all of the courses listed are offered within a single academic year. A listing of the courses offered during a given semester is printed in a Class Schedule Booklet, which is placed in each student's University mailbox before preregistration each semester.

PLEASE NOTE: A hyphen connecting courses (e.g., 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g., 201, 202), the first course is not necessarily prerequisite to those following. The semester hours credit for each course is indicated in parentheses following the course title.

TRIAL COURSES

Academic departments may offer special trial courses during the fall and spring semesters on a one-time basis without adding them to their regular departmental offerings. A second trial offering, if additional data are essential, must be within two regular semesters of the first. Numbers designating these special courses are 292 and 492. Descriptive information on trial courses does not appear in the catalogue, but is on file in the Office of the Registrar.

DIRECTED INDIVIDUAL STUDY

This course designated as 491 in each department involves investigation beyond what is offered in existing courses. To enroll in a Directed Individual Study, students must have an overall grade point average of at least 2.0 and the approval of 1) the faculty member who would direct the study, 2) the departmental chairman, and 3) the appropriate Dean. Departmental criteria will include 1) the availability of the instructor (ordinarily instructors will not supervise more than 6 student credit hours of Directed Individual Study per semester), 2) the appropriateness of and need for the proposed study in the student's program, 3) the availability of library and other research resources, and 4) the feasibility of completion of the proposed study in the allotted time. Students are limited to 9 credit hours of Directed Individual Study toward graduation requirements, not more than 3 of which can be outside the area of concentration.

COLLEGE OF ARTS AND SCIENCES

Daniel B. Plyler, *Dean*

The College of Arts and Sciences offers a variety of liberal arts programs leading to the Bachelor of Arts and Bachelor of Science degrees and a graduate program in Marine Biology leading to the Master of Science degree. The fourteen academic departments of the College provide courses of study in the fine arts and humanities and in the physical, biological, and social sciences. Degree requirements for all undergraduate concentrations available in the College of Arts and Sciences are listed below by departments. Requirements for the Master of Science degree are listed in the Graduate Studies section.

DEPARTMENTAL REQUIREMENTS

ANTHROPOLOGY

(See Sociology and Anthropology)

ARMY ROTC

(See Military Science)

ART

(See Creative Arts)

BIOLOGICAL SCIENCES

Dr. Merritt, *chairman*. Dr. Ballard, Dr. Biggs, Dr. Cahoon, Dr. Dillaman, Dr. Dodd, Dr. Dunn, Dr. Fugler, Dr. George, Dr. Hackney, Dr. Hosier, Dr. Kapraun, Mrs. Kendrick, Dr. Lindquist, Dr. Lundeen, Dr. McCrary, Dr. Mintzes, Dr. Padgett, Dr. Parnell, Dr. Plyler, Dr. Roer, Dr. Roye, Dr. Shafer, Dr. Sieren, Dr. Sizemore, Dr. Webster.

Requirements for a concentration in Biology for the B.A. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. In addition to these requirements, there are three options described below, one of which a student must elect in order to complete the degree requirements.

Option 1.

Biology 495 and a minimum of 23 hours chosen from courses numbered above 299, of which at least one course must be from each of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology; Chemistry 101-102 with lab or 105-106-102 with lab; a minimum of 16 hours chosen from the listed courses in at least two of the following areas: Chemistry 311, 312, 335; Computer Science 105, 111, 115; Geography 432, Geology 101, 102, 150, 450; Mathematics 151, 152, 161, 162, 261; Physics 101 or 105, 102, 201, 202, 260; Psychology 456, 457; Statistics 215. With the advance approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is a flexible program which can be designed by a student and an advisor to meet personal educational goals and interests which may or may not include graduate study; the program may be used to meet a set of specific requirements, for example, certification for teaching at the secondary school level.

Option 2.

Biology 335, 366, 475, 495; at least two of the following: Biology 356, 452, 454, 456, 457; a minimum of 8 hours chosen from Biology 315, 316, 345 or 355, 375, 377, 466, 491; Chemistry 101-102 with lab or 105-106-102 with lab; a minimum of 16 hours chosen from Chemistry 311, 312; Mathematics 111, 112; Geology 101, 102; Geography 432; Psychology 457; Statistics 215; Computer Science 105, 111. With the advance approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is designed for students interested in studying freshwater and terrestrial higher plants and animals and who will pursue graduate study and/or careers in such fields as systematics, ecology, fish and game management, and nature interpretation in parks and wilderness areas.

Option 3.

Biology 315, 335 with lab, 345, 347 or 465, 495; a minimum of 6 hours chosen from Biology 316, 371, 377, 410, 425, 435, 440, 441. Collateral requirements are Chemistry 101 and 102 with lab, 311 and 312 with lab, 335; Physics 101 and 102 with lab; Mathematics 151, 152. A "C" or better average on Biology courses above 299.

This option is designed for students who wish preprofessional training in medicine, dentistry, optometry, and other health care fields. The sequence of courses conforms to entrance requirements prescribed in publications of the Association of American Medical Colleges, the American Association of Dental Schools, and the Council on Optometric Education of the American Optometric Association.

Requirements for a concentration in Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 315 or 375 or 474, 335 with lab, 345 or 355 or 347 with lab, 366, 495, and a minimum of 6 additional hours in courses numbered above 299, one course each from two of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology. Collateral requirements are Chemistry 101-102 with lab or 105-106-102 with lab, 311-312 with lab; Physics 101-102 or 201-202; Mathematics 151 and Statistics 215. Students planning to attend graduate school are urged to take Chemistry 335, Mathematics 152, Computer Science 111, 121, 125, 126, and French 201-202 or German 201-202. A "C" or better average on all Biology courses above 299.

This degree program is designed for those students who plan to attend graduate school or seek employment in various fields of biological specialization.

Requirements for a concentration in Marine Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 362, 366, 345 or 355 or 347 with or without a lab; 315 or 316 or 335 with or without lab or 474; 495; a minimum of 8 hours selected from the following: 365 or 481, 446 or 472, 457, 458, 462, 468. Collateral requirements are Chemistry 101-102 with lab or 105-106-102 with lab; Geology 150; Physics 101-102 or 201-202; Mathematics 111-112 or 115-151 or a higher sequence; a minimum of 4 semester hours chosen from Chemistry 311, 312, 335, 475; Computer Science 111, 121, 125; Earth Sciences 230; Geography 430, 432; Geology 101, 231, 450; Statistics 215. A "C" or better average on Biology courses above 299.

This degree program is designed for those students who plan to attend graduate school or seek employment in fields of biological specialization which are marine-related.

For the purpose of satisfying degree requirements in Biology, the following are considered to be courses in

Advanced Botany: 355, 375, 446, 472, 474, 475, 477
Advanced Zoology: 315, 316, 345, 356, 365, 452, 454, 456, 458, 462, 481
Cellular-molecular Biology: 335, 347, 410, 425, 430, 440, 465, 467

Requirements for Teacher Certification in Biology: In addition to completing the requirements for a degree in Biology or Marine Biology and the other requirements of the Teacher Education Program, the following courses are required for certification: Biology 315; 235 or 335 with or without lab; 345 or 347 with or without lab or 355; and 366.

Biology Course Descriptions

BIO 105. Concepts of Modern Biology (4) An introduction to the diversity of life and the principles governing living systems, focusing on the role of man in the natural world. This course employs multi-media instructional materials and is designed for the nonbiology major. Three lecture hours and three laboratory/ discussion hours each week.

BIO 108. Introduction to Medical Technology (1) A survey of medical laboratory technology as a career option. Explores the many disciplines encompassed by the profession including microbiology, chemistry, blood banking, and hematology as they apply to the medical diagnostic laboratory, as well as brief considerations of cytotechnology and histo-technology. The course includes a discussion of the nature and scope of necessary skills, opportunities for advancement, certification requirements, and visits to a hospital laboratory. One hour and fifteen minutes each week.

BIO 205, 206, 207, 208. Core courses for biology majors; must be completed within the first four semesters.

BIO 205. Introductory Biology: Plants (4) Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes, and lower vascular plants. Three lecture and three laboratory hours each week.

BIO 206. Introductory Biology: Animals (4) Classification, morphology, physiology, and ecology of animals, including a brief survey of major phyla and discussion of human body systems. Three lecture and three laboratory hours each week.

BIO 207. Introductory Biology: Cells (3) An introduction to the cell as the basic unit of life. Cell structure is integrated with such functions as the utilization of food energy, the expression of genetic potential, cell movement, and reproduction. Three lecture hours each week.

BIO 208. Methods of Biological Research (3) Prerequisite: 2 semesters of introductory biology. An introduction to the scientific method, hypothesis construction, library resources, paper preparation and presentation, the use of computers, and basic statistics. Three hours each week.

BIO 215. Anatomy and Physiology (4) Prerequisite: Credit in Biology or consent of instructor. Brief introduction to major biological principles as applied to study of human anatomy and physiology. Three lecture and three laboratory hours each week.

BIO 216. (Physical Education 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three laboratory hours each week.

BIO 217. (Physical Education 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

BIO 225. Bacteriology (3) Prerequisite: Credit in Biology. Open only to nursing students. Bacteria and related organisms; laboratory work in common bacteriological techniques. Two lecture and three laboratory hours each week.

BIO 235, 236, 237, 238. Elective courses primarily for non-major students, emphasizing "man in the natural world"; two or more to be offered each semester.

BIO 235. Genetics in Human Affairs (3) A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing an understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three lecture hours each week.

BIO 236. Biology of the Sea (3) An introduction to marine environments, the diversity of marine life and the role of man in the utilization of marine resources. Students will become acquainted with local marine habitats, including: salt marshes, sandy beaches, tidal flats and rocky shores. Three lecture hours each week.

BIO 237. Plants and Civilization (3) An introduction to the plant kingdom, the diversity, structure, and function of plant life, and the impact of plants on human culture, history, civilization and economics. Three lecture hours each week.

BIO 238. Microbes and Human Society (3) An introduction to the world of the microorganism, focusing on the diversity, structure and function of microbial life, the spread and control of disease-producing organisms, and the impact of these life forms on human culture, history, and civilization. Three lecture hours each week.

BIO 240-241. Human Anatomy and Physiology (4-4) A comprehensive introduction to the anatomy and physiology of the human organism. Organ systems of the body are discussed individually and as parts of interacting groups, with emphasis on the processes which maintain an internal steady-state. Three lecture and three laboratory hours each week.

BIO 246. Microbiology of Human Diseases (4) Prerequisite: Biology 240. An introduction to the biology of microorganisms which affect humans. Emphasizes pathogenic and related microorganisms. The basic microbiological techniques needed to isolate, identify and control microorganisms will be covered. Three lecture and three laboratory hours each week.

BIO 315. Comparative Vertebrate Anatomy (4) Prerequisite: Biology 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals; rep-

resentative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

BIO 316. Vertebrate Embryology (4) Prerequisite: Biology 206. Fundamental principles of embryonic development of vertebrate animals; frog, chick, and pig emphasized. Three lecture and three laboratory hours each week.

BIO 335. Genetics (3) Prerequisite: Core courses. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action. Three lecture hours each week.

BIO 335-51. Genetics Laboratory (1) Prerequisite: Core Courses. Corequisite: Biology 335. Demonstration of basic heredity principles through study of Drosophila and other genetic systems. Three laboratory hours each week.

BIO 341. Clinical Calculations (1) Prerequisite: Junior status. Laboratory calculations specifically for Medical Technology majors, although it is open to other majors as well. Reviews basic chemical calculations and introduces the common mathematic applications in medical/biological laboratory. One hour each week.

BIO 345. Animal Physiology (4) Prerequisite: Biology 206, 207, and Chemistry 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

BIO 347. Molecular Biology of the Cell (3) Prerequisite: Biology 207 and Chemistry 311-312. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function. Three lecture hours each week.

BIO 347-51. Molecular Biology of the Cell Laboratory (1) Prerequisite or corequisite: Biology 347. Experiments demonstrating basic phenomena underlying cellular function. Three laboratory hours each week.

BIO 349. (Physical Education 349) Applied Physiology of Exercise (4) Prerequisite: Biology 215 or 345. A study of fundamental responses of the human body to stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and three laboratory hours each week.

BIO 355. Plant Physiology (4) Prerequisite: Biology 205, 207, and Chemistry 102. A study of plant function at the molecular, cellular, and organismic levels. Emphasis placed on unique aspects of vascular plants. Topics include water relations, solute tranport, photosynthesis, nitrogen metabolism, plant hormones, photocontrol of development, and stress physiology. Three lecture and three laboratory hours each week.

BIO 356. Vertebrate Natural History (4) Prerequisite: Biology 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

BIO 362. Marine Biology (4) Prerequisite: Biology 205, 206. The coastal and oceanic biota and their relationships to the marine environment. Three lecture and three laboratory hours each week.

BIO 365. Invertebrate Zoology (4) Prerequisite: Biology 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histories. Three lecture and three laboratory hours each week.

BIO 366. Ecology (4) Prerequisite: Core courses and upper level credit. Ecological principles pertaining to both plants and animals. Three lecture and three laboratory hours each week.

BIO 371. Human Fungal Diseases (1) Prerequisites: Biology 205 or 215 or permission of instructor. An in-depth consideration of human mycotic diseases for medical technology, nursing and premedical students. Emphasis will be placed on etiology, predisposing conditions, clinical diagnosis, immunology, serology and therapy of most presently recognized human mycoses. One hour each week.

BIO 375. Plant Morphology (4) Prerequisite: Biology 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants with emphasis on life histories, structure, and development. Three lecture and three laboratory hours each week.

BIO 410. (Marine Biology 512) Electron Microscopy and Cell Ultrastructure (3) Prerequisite: Biology 347. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and function of cell organelles in plants and animals. Three lecture hours each week.

BIO 410-51. (Marine Biology 512-51) Electron Microscopy Laboratory (1) Corequisite: Biology 410 and permission of instructor. Techniques for fixing, embedding, and thin sectioning of tissue will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours each week.

BIO 415. (Marine Biology 520) Vertebrate Histology (4) Prerequisite: Core courses in Biology 241. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

BIO 425. Microbiology (4) Prerequisite: Core courses. A study of nonpathogenic and pathogenic microorganisms with emphasis on the biology of viruses and bacteria. Laboratory sessions will include the techniques required to identify, culture and stain selected microorganisms. Three lecture and three laboratory hours each week.

BIO 430. (Anthropology 430) Evolutionary Biology (3) Prerequisite: Biology 335. Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three lecture hours each week.

BIO 435. (Marine Biology 535) Molecular Genetics (3) Prerequisite: Chemistry 102 and Biology 335 or 347 or 465. An overview of current understanding of the

nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein synthesis; recombinant DNA technoloogy; RNA processing; transposable genetic elements; and antibody diversity, synthesis, and function. Three lecture hours each week.

BIO 436. (Marine Biology 536) Recombinant DNA Techniques (2) Prerequisites: One of the following: Biology 335, 347, or 465. Basic principles and techniques of gene cloning using all three major types of cloning vectors: lambda phase, plasmids, and the single stranded DNA phange M13. Provides hands-on experience in recombinant DNA methodology. One lecture and four laboratory hours each week.

BIO 440. (Marine Biology 544) Developmental Biology (4) Prerequisite: Core courses. Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environmental control of development. Plant and animal systems studied in modern research literature will be discussed. Three lecture and three laboratory hours each week.

BIO 441. Introduction to Immunology (1) Prerequisite or corequisite: Chemistry 312. A general survey of modern immunological principles. One lecture hour each week.

BIO 445. (Marine Biology 545) Marine Physiology (4) Prerequisite: Biology 365. Introduction to physiological systems characteristic of marine vertebrates and invertebrates. Emphasis on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion, and movement. Three lecture and three laboratory hours each week.

BIO 446. Phycology (4) Prerequisite: Biology 205. An introductory survey of algal groups including benthic and planktonic freshwater and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

BIO 452. (Marine Biology 554) Mammalogy (4) Prerequisite: Core courses. A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptations, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lecture and three laboratory hours each week.

BIO 454. (Marine Biology 557) Herpetology (4) Prerequisite: Core courses. Study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

BIO 456. (Marine Biology 556) Ornithology (4) Prerequisite: Core courses or consent of instructor. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

BIO 457. (Marine Biology 537) Ichthyology (4) Prerequisite: Core courses. The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

BIO 458. (Marine Biology 565) Fisheries Biology (4) Prerequisite: Biology 457, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, migration, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

BIO 460. (Marine Biology 567) Limnology (4) Prerequisite: Core courses and Chemistry 102. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

BIO 462. (Marine Biology 552) Deep Sea Biology (3) Prerequisite: Biology 362. Biology of animals inhabiting the deep sea environment off North Carolina. Emphasizes faunal zonation, abyssal zoo-geography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea. Three lecture hours each week.

BIO 465. (Marine Biology 540) Biochemistry (3) Prerequisite: Chemistry 312. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzyme kinetics; bioenergetics, regulatory mechanisms. Three hours each week.

BIO 466. (Marine Biology 534) Advanced Ecology (4) Prerequisite: Biology 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

BIO 468. (Marine Biology 570) Planktonology (4) Prerequisite: Biology 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

BIO 470. Ecology of Human Populations (3) Prerequisite: Biology 345, 366. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week.

BIO 472. (Marine Biology 572) Marine Phycology (4) Prerequisite: Core courses. An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

BIO 474. (Marine Biology 576) Comparative Morphology of Vascular Plants (4) Prerequisite: Core courses. An in-depth study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

BIO 475. (Marine Biology 574) Plant Taxonomy (4) Prerequisite: Core courses or consent of instructor. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of Southeastern North Carolina. Two lecture and four laboratory hours each week.

BIO 477. Mycology (4) Prerequisite: Biology 205. Taxonomy, morphology, physiology, and ecology of fungi. Three lecture and three laboratory hours each week. One weekend field trip required.

BIO 480. (Marine Biology 580) Field Studies in Biology (1-6) Prerequisite: Biology 205 and 206, and consent of instructor (Biology 366 and credit in advanced zoology or botany recommended). A research/experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

BIO 481. (Marine Biology 559) Marine Invertebrate Zoology (4) Prerequisite: Core courses. A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

BIO 485. (Marine Biology 585) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

BIO 491. Directed Individual Study (1-3) Prerequisite: Biology 208, junior or senior standing, consent of instructor, and consent of department chairman.

BIO 495. Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Individual reports and group discussions of the results of student field, laboratory and/or library research on selected topics in Biology. May be repeated for a maximum of 3 semester hours.

BIO 499. Honors Work in Biology (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

CHEMICAL AND PHYSICAL SCIENCES

Dr. Jack B. Levy, *Chairman*

The Department of Chemical and Physical Sciences is comprised of the divisions of Chemistry and Physics.

CHEMISTRY

Dr. Adcock, Dr. Cahill, Dr. Hornack, Ms. R.B. Jones, Dr. S.B.Jones,Dr. Levy, Dr. Manock, Dr. Martin, Dr. Miller, Dr. Nance, Dr. Reeves, Dr. Sayed, Dr. Ward, Dr. Willey.

Requirements for a concentration in chemistry for the B.A. degree:
Core courses: Chemistry 101-102, 101-51, 102-51, 311-312, 311-51, 312-51, 325, 325-51, 335, 335-51, 355, 445, 495 or Environmental Studies 495, Mathematics 151-152, and Physics 101- 102 or 201-202.

Also required are the courses in one of the following emphasis alternatives:

Education: Education-Psychology block of 31 semester hours, Biology 105, and three of the following courses: Biology 205, 206, 207; Geology 101, 120, and 150; and Physics 260. Students completing this option qualify for teaching certification in chemistry. By including one biology course from Biology 205, 206, 207 and two geology courses from Geology 101, 120, and 150, students completing this option also qualify for certification in science.

Environmental Science: Chemistry 377, Biology 205 or 206, Environmental Studies 195, Geology 120, and Statistics 215. Among the core courses, Environmental Studies 495 is required.

Industrial Chemistry: Chemistry 315-316 or 435 and 435-51, Chemistry 377 and 485, Accounting 201, Business 217 or Statistics 215, and Business 313 or Computer Science 111. Chemistry 485 offered Spring 1988 and alternate years.

Marine Science: Chemistry 475, Biology 205 or 206, Geology 101 and 150, and either Biology 362 or Geology 450.

Premedical Science: Chemistry 417 and 465 and Biology 206, 207, and 315. Chemistry 417 offered Spring 1986 and alternate years.

A "C" or better on each Chemistry course.

Requirements for a concentration in Chemistry for the B.S. degree:

Chemistry 101-102, 101-51, 102-51, 311-312, 311-51, 312-51, 315-316, 321-322, 321-51, 322-51, 335, 335-51, 355, 435, 435-51, 445; either 445-51, 476, or 491 (1 hour); 495 and two of the following: 415, 446, 465, 485, and 491 (3 hours). Mathematics 161, 162, 261, and 361 and either Physics 201-202 or Physics 101-102, 206-207. A "C" or better on each Chemistry course. Students working for the B.S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

Chemistry Course Descriptions

(Department of Chemical and Physical Sciences)

CHM 101-102. General Chemistry (3-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with General Chemistry Laboratory (101-51, 102-51). Three hours each week.

CHM 101-51, 102-51. General Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

CHM 105-106-102. General Chemistry (2-2-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Chemistry 105-106 is a slower-paced equivalent of Chemistry 101. General Chemistry Laboratory 101-51 is normally taken concurrently with Chemistry 106, and Chemistry 102-51 is taken with Chemistry 102. Chemistry 105-106, two hours each week. Chemistry 102, three hours each week.

CHM 103. Chemistry in Everyday Life (4) A terminal, relatively non-mathematical one-semester course in chemistry for the non-science major. Topics include atomic and molecular structure as a basis for a general understanding of chemical reactions, drug activity, cancer, nuclear power, pesticides, environmental prob-

lems, energy resources, food additives, and the chemical industry. Three lecture and three laboratory/discussion hours each week. May not be taken for credit after Chemistry 102 has been passed.

CHM 115. Fundamentals of General Chemistry (3) Prerequisite or corequisite: Mathematics 111. A one-semester introduction to fundamental laws, principles, and theories of chemistry, and study of selected elements and compounds. Prepares students for Chemistry 215. May not be taken for credit after another General Chemistry course has been passed. Three lecture hours each week.

CHM 115-51. Laboratory for Fundamentals of General Chemistry (1) Corequisite: Chemistry 115. Introduction to techniques and equipment in the chemistry laboratory and interpretation of experimental results. Three laboratory hours each week.

CHM 215. Fundamentals of Organic and Biological Chemistry (3) Prerequisite: Chemistry 115 and 115-51 or 102 and 102-51. A one-semester introduction to the chemistry of carbon compounds with emphasis on those involved in biological processes, including proteins, carbohydrates, lipids, nucleic acids, vitamins, and hormones. May not be taken for credit after Chemistry 311 has been passed.

CHM 215-51. Laboratory for Fundamentals of Organic and Biological Chemistry (1) Corequisite: Chemistry 215. Introduction to equipment and techniques of organic and biological chemistry and interpretation of experimental results. Three laboratory hours each week.

CHM 225. Chemical Applications of Microcomputers (1) Prerequisite: Chemistry 102. A study of microcomputer applications in chemistry including an introduction to microcomputer design, peripherals, software, and preventive maintenance. Discussion of microcomputer communications and instrument interfacing. Programming in BASIC with chemical applications. No previous computer experience required. Intended for students who will be taking Chemistry 321, 325, or 335. Two hours each week.

CHM 311-312. Organic Chemistry (3-3) Prerequisite: Chemistry 102 and 102-51. Introduction to the chemistry of carbon compounds, including structural theory, synthesis, and reaction mechanisms. Normally taken concurrently with Organic Chemistry Laboratory (311-51, 312-51). Three hours each week.

CHM 311-51, 312-51. Organic Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 311-312. Three laboratory hours each week.

CHM 315-316. Advanced Techniques of Organic Chemistry (2-2) Prerequisite or corequisite: Chemistry 311-312 and 311-51, 312-51. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. One lecture and three laboratory hours each week.

CHM 321. Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent experience; Physics 202, and Mathematics 261. Chemical thermodynamics, reaction kinetics, and introduction to statistical mechanics. Three hours each week.

CHM 322. Physical Chemistry (3) Prerequisite: Chemistry 102,Physics 202 or 102 and 207, Mathematics 261. Introduction to quantum mechanics with applications to the structure of atoms and molecules. Spectroscopy, statistical mechanics, and elementary nuclear and solid state theory. Three hours each week.

CHM 321-51, 322-51. Physical Chemistry Laboratory (1-1). Prerequisite or corequisite: Chemistry 321 and 322, respectively. Three laboratory hours each week.

CHM 325. Brief Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent experience, one sequence in Physics and Mathematics 151 or 161. An abbreviated course in fundamentals of physical chemistry. Normally taken concurrently with Brief Physical Chemistry Laboratory (325-51). May not be taken for credit after 321 has been passed. Three hours each week.

CHM 325-51. Brief Physical Chemistry Laboratory (1) Prerequisite or corequisite: Chemistry 325. Three laboratory hours each week.

CHM 335. Quantitative Analysis (2) Prerequisite: Chemistry 102, 102-51 and 225 or equivalent experience. The theory of (a) gravimetric and volumetric analysis, (b) instrumental techniques, and (c) sampling sample preparation, and monitoring of air, water, etc. Normally taken concurrently with Quantitative Analysis Laboratory. Two hours each week.

CHM 335-51. Quantitative Analysis Laboratory (2) Prerequisite or corequisite: Chemistry 335. Four laboratory hours each week.

CHM 355. History and Literature of Chemistry (1) Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry. One hour each week.

CHM 377. Environmental Chemistry (3) Prerequisite: Chemistry 102. A study of chemical principles which apply to processes of environmental degradation and pollution prevention. Three hours each week.

CHM 415. Advanced Organic Chemistry (3) Prerequisite: Chemistry 312. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods. Three hours each week.

CHM 417. Medicinal Chemistry (3) Prerequisite: Chemistry 312. Systematic study of the chemistry, as well as the biological activity, or hormones, vitamins, drugs affecting the nervous system, and other miscellaneous agents. Prior Chemistry 415 or Chemistry 465 is recommended. Three hours each week. Spring 1988 and alternate years.

CHM 435. Advanced Analytical Chemistry (2) Prerequisite: Chemistry 333 or 335, 321 or 325, and their laboratories. Theory of modern analytical instrumentation and techniques. Normally taken concurrently with Advanced Analytical Chemistry Laboratory (435-51). Two hours each week.

CHM 435-51. Advanced Analytical Chemistry Laboratory (2) Prerequisite or corequisite: Chemistry 435. Four laboratory hours each week.

CHM 445. Inorganic Chemistry (3) Prerequisite: Chemistry 321 or 325. Advanced descriptive and theoretical inorganic chemistry. Three hours each week.

CHM 445-51. Inorganic Synthesis (1) Prerequisite or corequisite: Chemistry 445. Synthesis and techniques in inorganic chemistry. Normally taken concurrently with Inorganic Chemistry (445). Three laboratory hours each week.

CHM 446. Advanced Inorganic Chemistry (3) Prerequisite: Chemistry 322 and 445. Advanced topics in theoretical inorganic chemistry. Three hours each week.

CHM 465. Biochemistry (3) Prerequisite: Chemistry 312 and either 321 or 325. Study of the physical structures of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins and minerals and the chemical principles governing their biological activity. Special emphasis will be given to enzyme kinetics, solution properties of macromolecules, and the thermodynamic principles of intermediary metabolism. Three hours each week.

CHM 475. (Marine Biology 589) Chemical Oceanography (3) Prerequisite: Chemistry 102. Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week. Spring 1988 and alternate years.

CHM 476. (Marine Biology 588) Chemical Analysis of Natural Waters (2) Prerequisite: one of the following: Chemistry 335, 377, or 475. Standard chemical methods will be used to analyze natural water samples, including several fresh water samples and seawater. Methods will be evaluated with respect to appropriate applications. Analyses to be studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended material, and dissolved metals. One lecture and three laboratory hours each week. Spring 1987 and alternate years.

CHM 485. Industrial Chemistry (3) Prerequisite: Chemistry 312 and either 321 or 325. The characteristics of large scale chemical processes, including materials of construction, reactor design, fluid transport, solvent recovery and reuse, quality control, and environmental impact. Specific example processes include the conversion of raw petroleum feedstocks to plastics, fibers, and fuels, and the production of ethical drugs. Three hours each week. Spring 1987 and alternate years.

CHM 491. Directed Individual Study (1-3) Prerequiste: Junior or senior standing and consent of department chairman.

CHM 495. Senior Seminar (1-3) Prerequisite: Senior standing. Discussion of selected topics. One hour each week.

CHM 499. Honors Work in Chemistry (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

PHYSICS

Dr. Clator, Dr. Davis, Dr. Haywood, Dr. Hernandez, Mr. Nelson, Dr. Olszewski.

Requirements for a concentration in Physics for the B.A. degree:

Core courses: Physics 201-202, 225, 260, 335, 321, 400 (1 hour), 455, 495, Mathematics 151-152 or 161-162, Chemistry 101- 102 with lab or 105-106-102 with lab.

Also required are the courses in one of the following emphasis alternatives:

Education: Education-Psychology block of 31 semester hours, Biology 105, and three of the following courses: Biology 205, 206, and 207; Chemistry 311-312 with lab; Geology 101, 120, and 150. Students completing this option qualify for teacher certification in physics. By including one biology course from Biology 205, 206, and 207 and two geology courses from Geology 101, 120, and 150, students completing this option also qualify for certification in science.

Premedical Science: Biology 206, 207, and 315 and Chemistry 311-312 with lab.

General: One of the following Physics courses: 415, 445, or 491 (3 semester hours); Accounting 201-202, Computer Science 111 (with FORTRAN), Geology 101, and Statistics 215.

A "C" or better on each Physics course.

Requirements for a concentration in Physics for the B.S. degree:

Physics 201-202, 315-316, 321-322, 335, 400 (3 semester hours), 406, 421-422, 455, 495, and one of the following: 415, 435, or 445; Chemistry 101-102 with lab; Mathematics 335, 361 and one additional three semester hour Mathematics course at the 300-400 level.

A "C" or better on each Physics course.

Physics Course Descriptions

(Department of Chemical and Physical Sciences)

PHY 101-102. Elementary College Physics (4-4) Corequisite: Mathematics 111. Mechanics, heat, sound, light, electricity and magnetism, and introduction to modern physics. Three lecture and two laboratory hours each week.

PHY 105. Introductory Physics (4) Terminal course designed to cover basic principles of physics. Three lecture and two laboratory hours each week.

PHY 107. Physics of Music (4) Study of the scientific basis of music. Three lecture and two laboratory hours per week.

PHY 108. Meteorology (4) Prerequisite: Mathematics 102 or 111. A study of the principles underlying atmospheric phenomena and applications to observational techniques. Three lecture and one laboratory hour each week.

PHY 170. Photography (3) Techniques and procedures in the use of photographic materials and equipment. Two lecture and two laboratory hours each week.

PHY 201-202. General Physics (5-5) Corequisite: Mathematics 151-152 or 161-162. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radioactivity and nuclear physics. Four lecture and two laboratory hours each week.

PHY 206-207. Problems in General Physics (2-2) Prerequisite: Physics 101-102 and corequisite: Mathematics 151-152 or 161-162. Problems in general physics and their applications. Two problem sessions each week.

PHY 215-216. Electric Circuits (4-4) Corequisite: Mathematics 161. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency; phasor and two-port networks. Three lecture and three laboratory hours each week.

PHY 225. Electronics (3) Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and two laboratory hours each week.

PHY 260. Introduction to Astronomy (3) Descriptive course in principles, theories, and techniques of astronomy. Three lecture hours each week and occasional night viewing.

PHY 305. Science for Elementary Teachers (3) Open only to students concentrating in elementary education and to iin-service teachers. Biological and physical science areas appropriate for inclusion in elementary schools. Three hours each week.

PHY 315-316. Electricity and Magnetism (3-3) Prerequisite: Physics 202 and corequisite: Mathematics 261. Electric and magnetic field theory; Poisson's and Laplace's equations; harmonic methods, special methods for solution of electrostatic problems, material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics. Three hours each week.

PHY 321-322. Mechanics (3-3) Prerequisite: Physics 202. Elements of Newtonian mechanics, mechanics of continuous media, Lagrange's equation, rotation of a rigid body. Three hours each week.

PHY 335. Introduction to Modern Physics (3) Prerequisite: Physics 202. Survey of modern atomic and nuclear physics, including historical development, relativity, and wave mechanics. Three hours each week.

PHY 400. Advanced Laboratory (1) (May be repeated for up to three hours credit) Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer. One hour each week.

PHY 406. Mathematical Physics (3) Prerequiste: Physics 202. Designed to provide mathematics necessary for advanced undergraduate and beginning graduate study in physical sciences and to develop a strong background for students continuing into mathematics of advanced theoretical physics. Mastery of calculus and willingness to build on this mathematical foundation are assumed. Three hours each week.

PHY 415. Solid State Physics (3) Prerequisite: Physics 335. A study of the basic properties of solids—crystal structure; mechanical, thermal and electromagnetic properties as determined by the phonon, electron, and magnon characteristics. Three hours each week.

PHY 421-422. Quantum Mechanics (3-3) Prerequisite: Physics 335 and Mathematics 361. An introduction to the basic principles of quantum mechanics. Topics include the hydrogen atom, angular momentum and spin, perturbation theory, scattering, and applications to atoms, molecules, nuclei, solids, and elementary particles. Three hours each week.

PHY 435. Nuclear Physics (3) Prerequisite: Physics 421 or consent of instructor. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators. Three hours each week.

PHY 445. Optics (3) Prerequisite: Physics 202 and Mathematics 261. Physical and geometrical optics. Huygen's principles, electromagnetic theory of light. Three hours each week.

PHY 455. Thermal Physics (3) Prerequisite: Physics 335 or consent of instructor. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics. Three hours each week.

PHY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PHY 495. Physics Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in physics.

PHY 499. Honors Work in Physics (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

COMPUTER SCIENCE

(Mathematical Sciences)

CREATIVE ARTS

Mr. Dennis J. Sporre, *chairman.*

The Department of Creative Arts is comprised of divisions of Art, Drama, Music, and Speech Communication. The department offers concentrations leading to the B.A. degree in (1) Creative Arts in Art, Drama, and Music, and (2) Speech Communication.

ART

Ms. Conner, Mr. Furst, Mr. LeQuire, Dr. Myers.

Requirements for a concentration in Creative Arts-Art for the B.A. degree: Art 101, 102, 111, 112; either Art 211 or 212; six hours chosen from Art 201, 202, 204; three hours of three or four hundred level art history; three hours chosen from Music 261 or 262; three hours chosen from Drama 321, 322, 323; six hours chosen from practical and theoretical courses in Drama or Music (histories not included); twenty-four hours chosen from three studio areas. Electives chosen in consultation with the advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Art Course Descriptions

(Department of Creative Arts)

ART 101,102. Design (3,3) 101: Study of the principles of two-dimensional design and introduction to color theory. **102:** Study of the concepts of three-dimensional

design and of the nature of problem solving. One lecture and six studio hours each week.

ART 111, 112. Drawing Fundamentals (3, 3) Fundamentals of drawing using various media: charcoal, pencil, ink, etc. Four studio hours each week.

ART 201. Ancient World Through Medieval Period (3) A survey of art from ancient through medieval with an emphasis on major artistic developments in their historical and cultural context from 20,000 B.C. to 1400 A.D.

ART 202. Renaissance Through Contemporary Art (3) A survey of art from the Renaissance to the present with an emphasis on major artistic developments in their historical and cultural context from 1400 A.D. to the present time.

ART 204. Survey of American Art (3) A survey of American art from Colonial times to the present, with an emphasis on major examples of architecture, painting, sculpture, graphics and the decorative arts. Three hours each week.

ART 211. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, geometric form and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week. Fall.

ART 212. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, anatomy, and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week. Spring.

ART 221, 222. Beginning Ceramics (3, 3) Introduction to three-dimensional form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week.

ART 231-232. Beginning Printmaking (3-3) Prerequisite: Art 101 or 111 or 112 or permission of instructor. Problems in relief and intaglio using a variety of materials. May be taken in any sequence. Six studio hours per week.

ART 241, 242. Beginning Painting (3, 3) A beginning course investigating a variety of media, techniques, and subjects. Six studio hours each week.

ART 251, 252. Beginning Sculpture (3, 3) Prerequisite: Art 102 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week.

ART 306. Italian Renaissance Art (3) Prerequisite: Art 201, 202 or permission of instructor. A study of the development of art in Italy, 1200-1600 A.D., with an emphasis on painting, sculpture, architecture and graphics as related to Renaissance culture.

ART 307. History of Printmaking (3) Survey of printed pictures from the 15th century to the present. An appreciation of the evolution of printmaking from its practical applications to Fine Art, including major artists as printmakers. Studio experience optional.

ART 308. 20th Century Art (3) Prerequisite: Art 201, 202, 204, or permission of instructor. A study of movements and issues in art from 1900 to the present in Europe and the United States with an emphasis on developments as they contribute to contemporary art. Painting, sculpture, architecture, graphics and other vehicles of artistic expression will be discussed as they relate to these developments.

ART 311. Intermediate Life Drawing (3) Prerequisite: Art 211, 212 or permission of instructor. Drawing from the model: structure, composition, development of perssonal expression. Six studio hours per week. Fall.

ART 312. Intermediate Life Drawing (3) Prerequisite: Art 211, 212 or permission of instructor. Drawing from the model: structure, anatomy, development of personal expression. Six studio hours per week. Spring.

ART 321, 322. Intermediate Ceramics (3, 3) Prerequisite: Art 222 or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clays and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

ART 331-332. Intermediate Printmaking (3-3) Prerequisite: Art 231-232 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen. May be taken in any sequence. Six studio hours per week.

ART 341-342. Intermediate Painting (3-3) Prerequisite: Art 101, 242 or consent of instructor. Further exploration of painting techniques and expression. Six studio hours each week.

ART 351, 352. Intermediate Sculpture (3, 3) Prerequisite: Art 252 or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

ART 385. Art in the Elementary School (3) Appreciation of art designed for elementary teachers, including studio work and art education theory. One lecture and three studio hours each week.

ART 387. (ANT 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition and education. Three hours each week.

ART 387-51. (ANT 387-51) Museum Studies Practicum (1) Corequisite: Art 387 (Ant 387). Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ART 411. Advanced Life Drawing (3) Prerequisite: Art 311, 312 or permission of instructor. Drawing from the model: drawing as a finished product, exploration of drawing techniques. Six studio hours per week.

ART 412. Advanced Drawing (3) Prerequisite: Art 411 or permission of instructor. Drawing as a finished product, exploration of drawing techniques and subject matter. Six studio hours per week.

ART 421, 422. Advanced Ceramics (3, 3) Prerequisite: Art 322 or consent of instructor. Further experience in three-dimensional form and design and emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week.

ART 431-432. Advanced Printmaking (3-3) Prerequisite: Art 331 and 332 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen and collograph. May be taken in any sequence. Six studio hours each week.

ART 441-442. Advanced Painting (3-3) Prerequisite: Art 342 or consent of instructor. Emphasis on techniques and expression. Six studio hours each week.

ART 451,452. Advanced Sculpture (3,3) Prerequisite: Art 352 or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week.

ART 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

For 292 and 492, see explanation on p. 70.

DRAMA

Dr. Rogers, Mr. Sporre, Mr. Swink, Dr. Theodore.

Requirements for a concentration in Creative Arts-Drama for the B.A. degree: Drama 201, 205, 130 or 231, 307; six credits from Drama 321 or 322 or 323; three credits from Art 101 or 102 or 201 or 202 or 204; three credits from Music 105 or 115; nine credits of electives in Creative Arts outside of Drama. An option comprising one of the following also must be fulfilled. Option 1 (Acting): Drama 206, 232 (4 credits), 333 (4 credits), 355, and Communication 230. Option 2 (Directing): Drama 232 (4 credits), 306, 355, 455, 461 or 462. Option 3 (Design/Technical): Drama 202, 206, 305, 306, 405, 406. Option 4 (History and Theory): Drama 321 or 322 or 323; 345, 355, 461, 462. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Drama Course Descriptions

(Department of Creative Arts)

DRA 130. Improvisation (3) Exploration of spontaneous dramatic playing through intensive exercises and theatre games meant to generate greater individual freedom and self- discipline, as well as to employ improvisation techniques in acting to develop characterization, stage movement, and ensemble performance.

DRA 135. (Physical Education 102) Dance Techniques (1) Basic dance technique on a beginner level, including ballet, jazz, and modern dance.

DRA 136. Movement Exploration (2) Exploration of the relationship of dance to other art forms. Study through modern and creative dance techniques of the body's potential as a tool for creative expression, emphasizing the opportunity to demonstrate interrelationships in the arts through weekly choreographic assignments.

DRA 201. Technical Production I (3) Basic principles of scenic materials and equipment. Use of materials, methods of construction, and handling of scenery and properties. One lecture and six laboratory hours per week. Participation in the University Theatre productions required.

DRA 202. Technical Production II (3) Prerequisite: Drama 201 or consent of instructor. Practical training in shop organization and technical production, plus basic principles of theatrical graphics. Two lecture and four laboratory hours each week. Participation in University Theatre productions required.

DRA 205. Stage Make-up (2) Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

DRA 206. Costume History and Construction (3) An examination of major historical costume styles. The student also will learn basic costume construction techniques, applying those techniques to individual projects as well as to the costumes for departmental productions. Two lecture hours and three laboratory hours per week.

DRA 221. Introduction to the Theatre (3) Appreciation of theatre through an understanding of its artistic elements, history, dramatic literature, and audience involvement. Three hours per week.

DRA 225. History and Appreciation of Film (3) A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

DRA 231. Acting I (4) Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and 2½ laboratory hours each week.

DRA 232. Acting II (4) Prerequisite: Acting I and/or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and 2½ laboratory hours each week.

DRA 235. Dance Technique II (1) Prerequisite: Dance Technique I or equivalent and consent of instructor. Basic dance technique on an intermediate level.

DRA 305. Scenic Design (3) Prerequisite: Drama 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, techniques application, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

DRA 306. Stage Lighting (3) Prerequisite: Drama 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundamentals of electricity, lighting

equipment, the use of color, and the basic principles of design. Two lecture and two laboratory hours each week. Participation in University Theatre productions required.

DRA 307. Theatre Management (3) Course focuses on various aspects of management: publicity, business management, public relations, and house management.

DRA 321, 322, 323. Theatre History (3,3,3,) 321: Pre-Greek beginnings to seventeenth century. 322: Seventeenth century to nineteenth century. 323: Late nineteenth century to the present day. Three hours each week.

DRA 333. Acting III (1-4) Prerequisite: Acting I and II and/or consent of instructor. Scene study. A contractual course with individual student commitmennt concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

DRA 345. Playwriting I (3) Analysis of one-act plays and their construction; the writing of an original one-act play required. Three hours each week.

DRA 355. Directing I (3) Fundamental principles of directing with emphasis on one-act productions. Three hours each week.

DRA 405. Scenic Design II (3) Prerequisite: Drama 305 or consent of instructor. An advanced approach to historical styles and special design problems, including the relationship of architecture to the mise en scene.

DRA 406. Costume Design (3) Application of the principles of theatrical design to stage costuming. Three hours per week.

DRA 425. Aesthetics of Film (3) A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

DRA 445. Playwriting II (3) Prerequisite: Drama 345 or permission of instructor. Advanced techniques of playwriting with emphasis on full length play; the writing of an original full length play. Three hours each week.

DRA 455. Directing II (3) Prerequisite: Drama 355. Advanced techniques in the direction of plays for the stage. Three hours each week.

DRA 461, 462. Seminar in Dramatic Theory (3, 3) Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present. Three hours each week.

DRA 485. Senior Project (3) Every major may choose a specific area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Creative Arts for approval prior to the semester during which the project will be attempted.

DRA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

DRA 495. Theatre Seminars (1-3)

DRA 499. Honors Work in Drama (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

MUSIC

Mr. Bongiorno, Dr. Deas, Dr. Hickman, Dr. Martin, Ms. Mathew, Mr. McLamb.

Requirements for a Concentration in Creative Arts-Music for the B.A. degree: Students may emphasize either General Music or Performance. Core courses, common to either emphasis: Music 101, 102, 201, 202, 261, 262.

General Music: In addition to the core requirements the general music student will be required to complete three hours of Art History (201 or 202) plus three hours of Introduction to Theatre (DRA 221); 10 hours of applied music in the principal area, at least two hours at the 300 level; four hours of applied msuic in a second area; six hours of major ensemble (keyboard students may substitute up to two hours of 082 and/or 131); nine hours of Music Electives; and Recital (at least twenty minutes) or Thesis.

Performance: In addition to the core requirements, the student who emphasizes performance must complete an additional five hours of Music Theory (MUS 301 and choice of 302 or 303); six additional hours of Music History (MUS 361, 362, 363); 22 hours of applied music in the principal area (at least 12 hours at the 300 level). Students pursuing the composition emphasis noted below will substitute 16 hours of composition and six hours of applied music in a secondary area (at least two hours at the 300 level) for the 22 hour applied music requirement; 8 hours of major ensemble (three of these hours can be counted toward basic studies requirements); two recitals (the Junior Recital is normally a half recital); three hours from ART 201, 202, or DRA 221, (also to be counted toward basic studies requirements); and 21 hours of music electives chosen according to the following emphases:

(1) Vocal Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 271, 272, 273, 274, 379, and eight hours of free electives.

(2) Keyboard Performance: Six hours of secondary applied music (not to include class piano); MUS 285; 275 or 276; 375 or 376; and six hours of free music electives.

(3) Keyboard Performance with Pedagogy: Three hours of secondary applied music (not to include class piano), MUS 285, 275, 276, 375, 376, two semesters of 475, and three hours of free music electives. Also, the major ensemble requirement stated above is reduced to six hours (three to be counted toward basic sudies requirements) of which only two hours can be substituted by 082 or 131.

(4) Instrumental Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 371, and 12 hours of free music electives.

(5) Composition: MUS 302 or 303, MUS 306, 307, seven hours of conducting, and eight hours of free music electives. The Junior Recital is a half recital in the composer's secondary appliedarea. The Senior Recital is to be in composition and should include the composer as a participant.

(6) Performance-Church Music: Two hours of secondary applied (the vocalist must take two hours in piano beyond the proficiency level, the keyboard student must take at least two hours in voice and complete the sophomore level of private voice study); MUS 285; 485 (choral); 255; 355; two hours from 243, 245, 247, or 249; 377, and four hours of free music electives. (Keyboard students must take 257 as part of the electives)

A "C" or better grade must be achieved in all courses taken to meet the Creative Arts degree requirements. All Creative Arts-Music majors must pass the piano proficiency exam and the listening exams. Those who do not pass the piano proficiency examination upon entering the music program are required to take class piano until the exam is successfully completed. The student must satisfactorily meet performance seminar and recital attendance reuirements. Admission to the music program requires an audition, interview, and theory placement test.

Music Course Descriptions

(Department of Creative Arts)

MUS 082. Accompanying (1) Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Student will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

MUS 083. UNCW Chamber Singers (1) Select group drawn from the concert choir (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week.

MUS 084. Jazz Ensemble (1) Prerequisite: Consent of instructor. The study and performance of jazz techniques and interpretation of popular styles in large and/or small ensemble. Open to any student who has had instrumental experience. Participation is determined by audition at the beginning of each semester. One 2-hour rehearsal per week.

MUS 085. Wind Ensemble (1) Open to any student who has had previous training or experience in instrumental music and who has the consent of the director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 086. Concert Choir (1) Prerequisite: Auditions by director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 087. Orchestra (1) Tuesdays 7:30-9:30 p.m. Auditions by director. Study and performance of the orchestral literature performed with the UNCW/Community Orchestra which meets for a minimum of two hours per week and gives an average of four performances per year.

MUS 101. Theory I (3) Prerequisite: Placement test. Corequisite: Music 101-51. An indepth study of the basic materials of music, including the physics of sound, time classification, notation of pitch and rhythm, intervals, scales and modes, key signatures and triads. Three hours per week.

MUS 101-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 101. Includes melodic, harmonic and rhythmic dictation, singing and performing at the keyboard materials introduced in Music 101-01. Two hours per week.

MUS 102. Theory I (3) Prerequisite: Music 101. Corequisite: Music 102-51. A study of tonality, triads in inversions, phrase structure and cadences, harmonic progression, the technique of harmonization and nonharmonic tones. Three hours per week.

MUS 102-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 102. Application through dictation, Sight-Singing and keyboard exercises the materials introduced in Music 102-01. Two hours per week.

MUS 105. Rudiments of Music (3) A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, Sight-Singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Three hours each week.

MUS 115. Survey of Music Literature (3) Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required. Three hours each week.

MUS 116. History of Jazz (3) A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required. Three hours each week.

MUS 117. American Music (3) A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required. Three hours each week.

MUS 118. Survey of Electronic Music (3) A non-technical survey of electronic music, analytical study of compositions from recordings, and basic compositional methods utilizing the facilities of the UNCW Electronic Music Studio. Technical knowledge of music not required.

MUS 131. Chamber Music Workshop (1) Open to any student who has had previous training and experience and who has the consent of the chairman of the department. Small instrumental and vocal ensembles. Type of group will depend upon availability of personnel and faculty instructor. Two hours per week. Accumulative credit.

MUS 133. Opera Workshop (3) Prerequisite: Music 195 (Voice) or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week.

MUS 134. Choral Workshop (3) Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Three hours each week.

MUS 141-142. Class Piano I (1-1) Prerequisite: Consent of instructor. Recommended for all students enrolled in Music Theory 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

MUS 143-144. Class Guitar (1-1) Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

MUS 146. Class Voice (1) Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

MUS 195. Lower Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viol	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 196. Lower Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 197. Lower Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 201. Theory II (3) Prerequisite: Music 102. Corequisite: Music 201-51. A study of the musical process as observed in the literature of the common practice period. Based upon both structural and functional analysis as well as problem solving and controlled composition exercises. Includes secondary dominants, chromatic approach chords and the concept of modulation. Three hours per week.

MUS 201-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 102. Corequisite Music 201. Includes melodic and rhythmic dictation, singing and memorizing various modes,scales and broken chord patterns in root position, harmonic dictation with emphasis on modulation. Two hours per week.

MUS 202. Music Theory II (3) Prerequisite: Music 201. Corequisite Music 202-51. A study of the musical process as observed in the late common practice and early twentieth century periods. The development further of the concept of modulation and chromatic harmonies and introduction to such practices as quartal and polytonal harmonies. Three hours per week.

MUS 202-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 201. Corequisite: Music 202. Continuation of Music 201-51 with an emphasis on inversions

and chromatically derived patterns. Utilization of quartal and polytonal harmonies. Two hours per week.

MUS 203. Composition (1 or 3) Prerequisite: Consent of instructor. A beginning study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 218. Electronic Music Composition (2) Prerequisite: Music 118. A study of basic recording and synthesizer techniques utilizing the facilities of the UNCW Electronic Music Studio. Two hours per week.

MUS 235. Jazz Improvisation (2) Prerequisite: Music 101-102 or consent of instructor. Development of materials and practices for improvisational skills in the jazz idiom. Open to any student with instrumental experience. Presentation in both lecture and performance format. Two one (1) hour meetings per week.

MUS 236. Jazz Improvisation II (2) Prerequisite: Music 235 or consent of the instructor. Materials and practices for further development of improvisational skills in the jazz idiom. Presentation in both lecture and performance format. Two one (1) hour meetings each week.

MUS 241-242. Class Piano II (1-1) Prerequisite: Music 142 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

MUS 243-244. Class Strings (1-1) Prerequisite: Consent of instructor. Class instruction in violin, viola, cello, or string bass. Two laboratory hours each week.

MUS 245. Woodwind Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 247. Brass Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 249. Percussion Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 255. Church Music Literature (3) Prerequisite: Knowledge of music fundamentals. A survey of music literature of the western church including a study of the historical function of various musical idioms and styles.

MUS 257. Service Playing (2) Prerequisite: Permission of instructor. Practical study of service playing: organ improvisations, modulations, and related problems. Two hours per week.

MUS 261, 262. Introduction to Music History I & II (3,3) A two-semester overview of music history and literature stressing the stylistic developments of music and related social and historical events. 261: Music history and literature of the Middle Ages, Renaissance, and Baroque. 262: Music history and literature of the Classic, Romantic, and Contemporary periods. Three hours per week.

MUS 271. Italian Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of Italian diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 272. English Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of English diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours per week instruction.

MUS 273. German Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of German diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 274. French Diction for Singers (1) Prerequisite: Music major only/consent of instructor. Basic principles of French diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 275, 276. Keyboard Literature I & II (3,3) Prerequisite: One year private keyboard instruction at the college level. A survey of keyboard literature in relation to contemporary pedagogical use. Historical evolution of instrument design included. 275: Beginning and intermediate keyboard literature of the 18th, 19th and 20th centuries. 276: Advanced literature of the 18th, 19th and 20th centuries. Three hours per week.

MUS 285. Basic Conducting (3) Prerequisite: Music 102, 142. An examination of conducting techniques, score reading techniques and an understanding of terminology.

MUS 301. Form/Analysis (3) Prerequisite: Music 202. A study of forms common in Western music from 1600 to the present and the development of skills in analysis. Three hours each week.

MUS 302. Modal Counterpoint (2) Prerequisite: Music 301. A study of strict contrapuntal practice as observed in the church music of Palestrina, Lassus and other 16th century composers. Includes writing in 2, 3 and 4 "free" voices with and without text as well as 2 & 3 part canons. Techniques of melodic and countrapuntal inversion are also covered. Two hours per week.

MUS 303. Tonal Counterpoint (2) Prerequisite: Music 301. A study of contrapuntal practice as observed in the music of J. S. Bach and other 17th and 18th century composers. Includes analysis and composition of both Invention and Fugue. Also includes contrapuntal and melodic inversion. Two hours per week.

MUS 306. Orchestration (2) Prerequisite: Music 243-244, 245, 247, and 249, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music. Two hours each week.

MUS 307. Twentieth Century Idioms (2) Prerequisite: Music 301. An indepth study of musical practice from 1900 to the present based upon both structural and

MUS 375. Piano Pedagogy I (3) Prerequisite: Two years private piano instruction at college level. Problems, materials, and methods in teaching beginning piano to children.

MUS 376. Piano Pedagogy II (3) Prerequisite: Two years private piano instruction at college level. Problems, materials, and methods in teaching piano to older students of high school and early college age.

MUS 377. Choral Methods (2) Prerequisite: Consent of instructor; Music 285. Methods of teaching choral ensembles from elementary through senior high school. Includes repertoire, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship and the practical aspects of teaching choral music.

MUS 379. Vocal Pedagogy and Literature (2) Prerequisite: Two years of college vocal study. Basic procedures of teaching voice. Materials for solo voice studied and performed. Two hours each week.

MUS 395. Upper Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cell	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 396. Upper Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 397. Upper Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 403. Advanced Composition (3) Prerequisite: Music 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 475. Practicum in Applied Teaching (1) Prerequisite: Music 371, or 375-376, or 379. Students will develop and implement a private studio under the guidance of a faculty member. One hour per week.

MUS 485. Advanced Conducting (2) Prerequisite: Music 285. Study in either choral or instrumental techniques. This course enables the student to work with the appropriate ensemble using selected literature, i.e., orchestral, wind ensemble or vocal literature, for the various mediums.

functional analysis as well as problem solving and controlled compositional exercises.. Includes quartal harmonies, mixed meters, texture and timbre as musical parameters, indeterminacy and serialism. Two hours per week.

MUS 325. Music Education for Elementary Teachers (3) Prerequisite: Music 105 (recommended) or Music 115. Approach to the teaching of music at the elementary level, including the use of piano laboratory. Three hours each week.

MUS 326. Methods of Teaching Music in the Elementary Schools (K-6) (2) Prerequisite: Consent of instructor; open only to currently enrolled music education majors. The purpose of this course is to study the scope and goals of the elementary music curriculum, the organization of musical content with regard to learning theories and developmental characteristics of the child, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on some of the innovative ideas in the field, including techniques developed by Orff and Kodaly. The course will also include an evaluation of music textbooks and materials for this level.

MUS 327. Methods of Teaching Music in Secondary Schools (7-12) (2) Prerequisite: Open only to currently enrolled music education majors with consent of instructor. The purpose of this course is to study the scope and goals of the secondary music curriculum, the organization of musical content with regard to learning theories and behavioral characteristics of the adolescent, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on methods for teaching music in the classroom. The course will also include an evaluation of music textbooks and materials for this level.

MUS 355. Music in Religious Institutions (3) Prerequisite: Music 255. A study of the philosophic and administrative dimensions of music in religious institutions. Topics include historical antecedents and contemporary patterns. Three hours per week.

MUS 361, 362, 363. History of Music (2,2,2) Prerequisite: Music 261, 262 and for 362 & 363, only, Music 301. 361: Stylistic development of music of the Medieval and Renaissance eras. 362: Music history and literature of the 17th and 18th centuries. 363: Music history and literature of the 19th and 20th centuries. Two hours per week.

MUS 364. Contemporary Music Literature (2) Prerequisite: Music 301 and 363. A study of music from the contemporary era.

MUS 371. Instrumental Pedagogy and Literature (2) Prerequisite: Two years of college instrumental applied music. Problems, materials, and methods in teaching instruments to private students. Two hours per week.

MUS 373. Instrumental Methods (2) Prerequisite: Consent of instructor; Music 285, 243, 245, 247, 249. Methods of teaching instrumental classes and ensembles from elementary through senior high school. Includes repertoire, marching band techniques, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship, and practical aspects of teaching instrumental music.

MUS 490. Thesis (1) A research thesis in a subject to be determined in consultation with the music faculty during the semester preceding the taking of this course.

MUS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MUS 493. Recital (1) Consent of the music faculty.

MUS 495. Seminar in Music (1-3) Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

MUS 499. Honors Work in Music (2-3) Prerequisite: Eligibility for honors program, and junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

SPEECH COMMUNICATION

Dr. Welch, *coordinator.* Mr. Harrington, Ms. Noor Al-Deen, Dr. Rohler, Dr. Tallant, Mr. Trimble, Dr. Weiss.

Requirements for a concentration in Speech Communication for the B.A. degree: Communication 105, 221, 230, 275, 327, 340, 341; Anthropology 208; English 320; Philosophy and Religion 110; Psychology 311; and six hours of Modern Language or Computer Science Language. The collateral area (18 hours) will be determined individually in consultation with the advisor. A grade of "C" or better on all required courses in the concentration.

Speech Communication Course Descriptions

(Department of Creative Arts)

COM 105. Fundamentals of Speech (3) Principles and basic skills in speaking and listening; classroom exercise and discussion. Three hours each week.

COM 116. Oral Interpretation of Literature (3) The study and analysis of literature through the medium of oral performance. Three hours each week.

COM 170. Intercollegiate Forensics (1) One hour of academic credit each semester (up to eight hours total) for participation in debate and/or individual speaking events on the Intercollegiate Forensics Team. One hour each weeek.

COM 210. Oral Interpretation of Children's Literature (3) Focuses on several methods of performance of children's literature. Storytelling, solo performance and group performance will be covered. Areas of emphasis will be selection of suitable material, cutting of the material and techniques of performance. Three hours each week.

COM 220. Interpersonal Communication (3) This course focuses upon the communication process in face-to-face situations. It is designed to improve the every-

day communication skills of the student through a greater understanding of the interpersonal process. Emphasis is placed upon the development of interviewing techniques, information acquisition and persuasive dialogues. Three hours each week.

COM 221. Group Discussion (3) Prerequisite: Communication 105 or consent of instructor. The study of and practice in oral group methodologies, including panel, forum and symposium speaking. Three hours each week.

COM 230. Voice and Diction (3) Principles and use of the voice exercises in vocal variety, articulation and pronunciation. Three hours each week.

COM 265. Survey of Mass Communications (3) An examination of U.S. radio, television, newspaper, magazines and film. Emphasis on their development, functions, theoretical foundations, present uses, and effects. Special project required. Three hours each week.

COM 268. Broadcast Journalism (3) Prerequisite: English 102. Principles and basic skills in writing for the broadcast media; includes exercises inside and outside of classroom. Emphasis on broadcast news writing, news coverage, news editing, and news problems and potentials. Three hours each week.

COM 270. Parliamentary Procedure (1) Principles and rules governing deliberative assemblies. One hour each week.

COM 275. The Art of Persuasive Speech (3) Prerequisite: Communication 105 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways. Three hours each week.

COM 276. Debate (3) Prerequisite: Communication 105, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution. Three hours each week.

COM 290. Rhetoric of Popular Culture (3) Analysis will focus upon an understanding of the various persuasive influences inherent in modern society. Areas of emphasis will include analysis of persuasive appeals in advertising, music, art, movies, theatre, social movements, politics, literature, and sports. Three hours each week.

COM 316. Advanced Oral Interpretation (3) Prerequisite: Communication 116 or by consent of the instructor. Survey of interpretation history and theory; performance emphasis on such advanced projects as program creation, book reviewing and adapting prose and poetry. Three hours each week.

COM 325. Business and Professional Speaking (3) Prerequisite: Communication 105. Public speaking skills in directed experiences especially related to speech communication tasks which accompany the role of a business or professional person. Topics include the delivery of briefings, manuscript speeches, conferences, interviewing, salesmanship, use of electronic extenders and visual aids. Three hours each week.

COM 327. Organizational Communication (3) Prerequisite: Communication 105. The study of communication in organizations; theories of communication and their applications to organizations. Three hours each week.

COM 340. Communication Theory (3) Prerequisite: Communication 105 or consent of instructor. The course explores theoretical perspectives concerning how and why people communicate. Emphasisis placed on a greater understanding of the human communication process. Three hours each week.

COM 341. Rhetorical Theory (3) Prerequisites: Communication 105, Communication 340 or consent of the instructor. Introduction to the basic classical and contemporary theories of rhetoric from Plato through the present. Three hourse each week.

COM 365. The Broadcast Regulatory Process (3) Prerequisite: Communications 265, 268, or consent of instructor. Survey of broadcast history, law, politics, and regulation with emphasis on the roles of the Federal Communications Commission, the White House, Congress, courts, citizen's groups, and the broadcast industry itself in creating and enforcing broadcast regulations.

COM 415. Readers Theatre (3) Prerequisite: Communication 116. The application of oral interpretation techniques to group readings. Students will be involved in both technical and performance aspects of production. Three hours each week.

COM 421. Communication for Public Relations (3) Prerequisite: Any one of the following: Communication 265, 268, 275, 327, 340, 365, 465 or English 202. Principles of public relations, with special emphasis on those theories and skills relevant to the communication functions of businesses and non-profit organizations. Three hours each week.

COM 450. History of Rhetoric and Public Address (3) A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address. Three hours each week.

COM 465. Mass Communications in Society (3) Prerequisite: Communication 265. A seminar encompassing the development of mass communications, the obligations of the press, radio and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications. Three hours each week.

COM 467. Broadcast Advertising and Audience Analysis (3) Prerequisite: Communication 265 or consent of instructor. Broadcast advertising and audiences from a theoretical and practical perspective. Mass communication theories applied in a practical setting as students conduct a major audience analysis for a mass media organization. Includes analysis and use of survey/research methodology.

COM 485. Senior Project (3)

COM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the department chairman.

COM 498. Internship in Speech Communication (3-6) Prerequisite: Permission of Speech Communication faculty and senior status. A program of work and study conducted within an agency and/or setting which provides practical experience with observation of applications of theoretical concepts in Speech Communication. Open to qualified students with permission of the Speech Communication faculty.

COM 499. Honors Work in Communication (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA

(See Creative Arts)

EARTH SCIENCES

Dr. Victor A. Zullo, *chairman*. Dr. Ainsley, Dr. Cleary, Dr. Dockal, Mr. Hall, Dr. Harris, Dr. Huntsman, Dr. Laws, Dr. Metzger, Dr. Randall, Dr. Spyrou, Dr. Thayer.

The Department of Earth Sciences offers concentrations in Geography and Geology which prepare the student for advanced studies or for teaching, research and technical careers available to one who holds the baccalaureate degree.

Requirements for a concentration in Geography for the B.A. degree: Core requirements: Georgraphy 110, 130, 140, 270, 320, 322, 325, 429, 495. Collateral requirements are Computer Science 111 and Statistics 215. In addition there are two options, described below, one of which a student must elect in order to complete the degree requirements. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department.

Option 1.

This option provides a broad, flexible program to meet personal educational goals and interests including careers and graduate study in geography.

(a) Physical Geography: 7 hours selected from Geography 230, 333, 335, 336 and 432.
(b) Economic and Urban Geography: 6 hours selected from Geography 312, 315 and 317.
(c) Applied Geography and Planning: 6 hours selected from Geography 372, 375 and 378.
(d) Cultural Geography: 9 hours, including 3 hours in regional geography, selected from Geography 240, 255, 282, 350, 352, 382, and 385.

Option 2.

This option is designed specifically for students interested in pursuing careers and/or graduate study in planning and applied geography.

(a) Geography 312, 317, 333 and 335.
(b) Geography 496 or 498 and 6 hours selected from Geography 372, 375, 378.
(c) 6 hours selected from Economics 105, Political Science 207, 308, and Sociology 315, 385.

Geography Course Descriptions

(Department of Earth Sciences)

GGY 110. Economic Geography (3) Human economic activities, their location and relationships to physical and economic conditions of the environment. Three hours each week.

GGY 130. Introduction to Physical Geography (4) Maps and map projections and their uses: analysis of the spatial distribution and character of environmental elements, including climate, land forms, vegetation, and soils. Three lecture and two laboratory hours each week.

GGY 140. Introduction to Human Geography (3) Concepts and methods of human geography with emphasis on current problems related to the spatial distribution of population. Three hours each week.

GGY 220. Earth Science Graphics (3) Methods of graphic expression related to natural science in general; use of various media; methods of reproducing graphic works; introduction to aerial photography interpretation and basic map use. One lecture and four laboratory hours each week.

GGY 230. Introduction to Weather and Climate (3) Examination of general climatic characteristics through space and time, especially as influenced by controls upon temperature, wind and moisture distributions, and by planetary, regional and local atmospheric disturbances. Three hours each week.

GGY 240. Population Geography (3) Prerequisite: Geography 140 or consent of instructor. A study of the spatial dimensions of population growth, density and movement and of the shifts in these patterns as they relate to changes in selected socio-economic and cultural phenomena. Three hours each week.

GGY 255. Historical Geography of the Middle East (3) Geographical, archaeological, historical and geological investigation of the physical environment and cultural landscapes that provided the settings for the evolution of the population, economics and cultures of Southwestern Asia. Three hours each week.

GGY 270. Principles of Land Use Planning (3) Prerequisite: Geography 130 and 140 or consent of instructor. Introduction to planning techniques and to planning as a profession. Classification and analysis of spatial variations in land use patterns and development processes as they relate to the physical environment and human activities. Three hours each week.

GGY 282. Geography of North Carolina (3) Prerequisite: Geography 140 or consent of instructor. A survey of the physical and cultural landscapes of North Carolina

with the emphasis on an understanding of the complex geographical variety that exists within a dynamic and growing southern state. Three hours each week.

GGY 312. Geography of Transportation (3) Prerequisite: Geography 110 or consent of instructor. Study of the structural elements of transportation systems and the spatial processes associated with their development. Three hours each week.

GGY 315. Industrial Geography (3) Prerequisite: Geography 110 or credit in economics or consent of instructor. Factors underlying the distribution, development and character of manufacturing activities and industrial regions. Emphasis is placed upon location theory. Three hours each week.

GGY 317. Urban Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban development and problems in the United States. Three hours each week.

GGY 320. Elementary Cartography (3) Techniques of drafting, map projection, and map designs; methods of data representations on maps. One lecture and four laboratory hours each week.

GGY 322. Aerial Photography and Remote Sensing (3) Prerequisite: Geography 130 or Geology 101. Introduction to the use of aerial photography and other remote sensing techniques to analyze topography, geology, vegetation and culture. Two lecture and three laboratory hours each week.

GGY 325. Quantitative Methods in Earth Sciences (3) Prerequisite: Statistics 215. Use and interpretation of statistical techniques in geographic and geologic research. The course emphasizes problem identification, data collection and interpretation through assignments covering specific kinds of statistical methods. Three lecture hours each week.

GGY 333. Applied Climatology (4) Prerequisite: Geography 130 or 230 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three lecture and two laboratory hours each week.

GGY 335. Introduction to Geomorphology (4) Prerequisite: Geography 130 or Geology 101 or consent of instructor. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

GGY 336. Regional Geomorphology of North America (3) Prerequisite: Geography 335 or 130, and Geology 101, or consent of instructor. Analysis of the spatial patterns and interactions of geomorphic processes in North America. Particular emphasis is given to an examination of geomorphic provinces and analysis of regional historical geomorphology. Three lecture hours each week.

GGY 350. Political Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs. Three hours each week.

GGY 352. Historical Geography of the United States (3) Prerequisite: History 201 or Geography 140 or consent of instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time. Three hours each week.

GGY 372. Community and Regional Land Use Planning (3) Prerequisite: Geography 270. Application of planning techniques to current urban and regional land use problems. Topics include spatial structure of cities and regions and emphasis is placed upon the visual-spatial qualities of communities and regions. Three hours each week.

GGY 375. Rural Land Use Planning (3) Prerequisite: Geography 270. Concepts of planning applied to the protection of open space in the face of increasing development demands and pressures. Topics include farmland retention, landscape assessment, land trusts, preservation and scenic easements, zoning techniques and land use plans. Three hours each week.

GGY 378. Historic Preservation Planning (3) Prerequisite: Geography 270, or 352 or consent of instructor. An applied research course which deals with the procedures employed by federal, state and local agencies in locating, recording, restoring and preserving American architectural resources and material cultural heritage. Subjects examined include survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles. Three hours each week.

GGY 382. Regional Geography of the United States (3) Prerequisite: Geography 140 or History 202 or consent of instructor. A regional analysis of physical characteristics, resource base and human geography of the United States. Three hours each week.

GGY 385. Regional Geography of Europe (3) Prerequisite: Geography 140 or History 102 or consent of instructor. A regional analysis of the physical and cultural features of Europe. Three hours each week.

GGY 429. History and Philosophy of Geography (3) Prerequisite: Senior standing in geography. Development of geographic thought and comparative evaluation of current philosophies concerning the nature of geography. Three hours each week.

GGY 432. (Marine Biology 532) Biogeography (3) Prerequisite: Senior standing in geography, geology, or biology or consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic and evolutionary events of the past. Three hours each week.

GGY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GGY 495. Senior Seminar (1-3). Prerequisite: Senior standing in geography. May be repeated one time for credit. One to three hours each week.

GGY 496. Senior Thesis (2-2) Prerequisite: Senior standing in geography. A supervised senior thesis on a topic selected by the student, thesis advisor, and thesis committee. A written thesis, completed during a two semester period, and an oral defense are required.

GGY 498. Internship (3) Prerequisite: Senior standing in geography, recommendation of advisor and consent of the geography faculty. The student works a minimum of twelve hours per week for an outside agency or individual in a position that enables the student to utilize academic training in a practical field experience. A summary paper and an oral presentation before the geography faculty are required.

GGY 499. Honors Work in Geography (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

Requirements for a concentration in Geology for the B.A. degree: Geology 101, 102, 190, 201, 210, 231, 331, 341, Geography 335, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101 or (105, 106)-102. Mathematics 111-112 or 115, and a minimum of 7 hours selected from Biology, Chemistry, Computer Science, Geology, Geography, Mathematics or Physics. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department.

Requirements for a concentration in Geology for the B.S. degree: Geology 101, 102, 190, 201, 202, 231, 311, 312, 331, 341, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101-102, Mathematics 161-162, Physics 201-202, and a summer field course in geology offered by another institution. Students wishing to pursue a program emphasizing paleontology may substitute specific courses in biology for the physics requirement with approval of the department. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department. Students planning to attend graduate school are urged to take Computer Science 111, and French 101-102 or German 101-102.

Geology Course Descriptions

(Department of Earth Sciences)

GLY 101. Physical Geology (4) Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Field trips. Three lecture and three laboratory hours each week.

GLY 102. Historical Geology (4) Prerequisite: Geology 101. Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and three laboratory hours each week.

GLY 120. (Environmental Studies 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with

the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

GLY 131. Dinosaurs (2) Study of the Dinosaurs and other Mesozoic vertebrates as illustrations of the basic principles of vertebrate paleontology. Emphasis is placed on identification, systematics, evolution, ecology and extinction of the Dinosaurs. Two hours each week.

GLY 150. Introduction to Oceanography (3) An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips. Three hours each week.

GLY 190. Methods in Geology (3) Prerequisite: Geology 101 and Geology 102. Introduction to various bibliographic, graphic, field, and laboratory methods essential to geologic studies. Weekly projects and required field trips. Three hours each week.

GLY 201. Mineralogy (4) Prerequisite: Geology 101; corequisite: Chemistry 101, including laboratory. Principles of chemical bonding in natural solids; crystal chemistry; physical conditions of mineral genesis; geologically significant mineral associations; crystallography; mineral identification. Required field trips. Three lecture and three laboratory hours each week. Fall.

GLY 202. Advanced Mineralogy (3) Prerequisite: Geology 201. The technique of mineral identification and analysis. Theory and application of the polarizing microscope and X-ray diffractometer. Introduction to the principles of the electron microprobe, X-ray fluorescence and atomic absorption. One lecture and four laboratory hours each week.

GLY 210. General Petrology (4) Prerequisite: Geology 201 or consent of instructor. A survey of the major igneous, sedimentary, and metamorphic rock groups. Emphasis is on classification, textural features, mode of occurrence, environments of origin and economic importance. Laboratory stresses rock identification and typical rock associations. Required field trips. Three lecture and three laboratory hours each week.

GLY 231. Invertebrate Paleontology (4) Prerequisite: Geology 102 or consent of instructor. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and three laboratory hours each week.

GLY 250. Coastal Sedimentary Environments (4) Prerequisite: Geology 101 or consent of instructor. A study of the sedimentary processes and environments of the world's coastal systems. Emphasis is placed on river deltas, estuaries, bays, salt marshes, barrier islands and associated inlets. Ice bound as well as rocky coastlines are also examined. Three lecture and two laboratory hours each week.

GLY 311. Igneous and Metamorphic Petrology (4) Prerequisite: Geology 202. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimen-

tal data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and three laboratory hours each week.

GLY 312. Sedimentary Petrology (4) Prerequisite: Geology 202. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Field trips. Three lecture and three laboratory hours each week.

GLY 331. Stratigraphy (3) Prerequisite: Geology 231. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Field trips. Two lecture and three laboratory hours each week.

GLY 332. Micropaleontology (4) Prerequisite: Geology 231 or consent of instructor. Paleobiology ang geological history of micro-organisms emphasizing the classification and systematics of major microfossil groups. Introduction to the concepts of paleoecology, paleoceanography and biostratigraphy utilizing microfossils. Three lecture and three laboratory hours each week.

GLY 341. Structural Geology (4) Prerequisite: Geology 201 and Mathematics 112 or 115. Introduction to the mechanics, fabrics, and geometry of rock deformation, including stress-strain relationships, folds and folding, and faulting and fracturing of rocks. Selected regional examples introduce and test concepts and theories of orogenic rock mechanisms and tectonics. Required field trip. Three lecture and three laboratory hours each week.

GLY 391. Appalachian Geology (1) Corequisite: Geology 331 or 341. Field study of the structure, stratigraphy, rocks, and paleontology of the Paleozoic System of the Appalachian geosyncline. Introduction to sample collection, field mapping procedures, and methods of data analysis. Three field days and colloquium. Spring. (Fees)

GLY 392. Coastal Plain Geology (1) Corequisite: Geology 331. Field analysis of depositional patterns and paleontology of Cretaceous and Cenozoic units of the southeastern Atlantic Coastal Plain. Introduction to methods of litho- and biostratigraphic correlation, sampling techniques, and sample analysis. Three field days and colloquium. Fall. (Fees)

GLY 393. Coastal Processes (1) Prerequisite: Geology 101. Field examination of the depositional and erosional processes and materials in the marshes, estuaries and barrier islands of the Carolinas and Georgia. Introduction to the basic techniques used by coastal researchers in field measurements, sample retrieval and data analysis. Three field days and colloquium. Spring. (Fees)

GLY 394. Piedmont Geology (1) Prerequisite: Geology 102. Corequisite: Geology 201 or 341, or consent of instructor. Field examination of the petrology, degree(s) of metamorphism, and structural style(s) of the various belts of rock in the crystalline Appalachians. Observations permit regional tectonic syntheses for the Piedmont. Three field days and colloquium. Fall. (Fees)

GLY 431. Paleoecology (3) Prerequisite: Geology 331 or consent of instructor. Principles of ecological faunal analysis as primarily applied to the marine fossil record. Emphasizes the integration of form and function, taphonomy, community development through time and sedimentology/stratigraphy as a synthetic approach to paleoenvironmental, paleobiological and evolutionary analyses. Applications to biostratigraphy are considered. Required field trips. Three lecture hours each week.

GLY 440. Regional Geology of North America (3) Prerequisite: Geology 331, 341, and consent of instructor. Survey of the rocks, structures, natural resources, and tectonic histories of the different regions of North America such as the Precambrian Shield, Appalachians, and Cordillera. Three lecture hours each week.

GLY 450. Marine Geology (4) Prerequisite: Geology 101, Biology 362, or consent of instructor. Topography, sediments, structure and geologic history of the marine and estuarine environment. Required field trips. Three lecture and three laboratory hours each week.

GLY 471. Sedimentary Geochemistry (3) Prerequisite: Chemistry 102 and one of the following: GLY 210, GLY 312, CHM 377, CHM 475, CHM 476. Application of geochemistry to the formation and diagenesis of sediments and sedimentary rocks. Examination of mineral precipitation, sediment cementation, metasomatism and chemical erosion. Three hours each week.

GLY 480. Advanced Topics in Geology (1-3) Prerequisite: Junior standing in department and consent of instructor. Study of selected topics in geology that are not considered in detail in regular course offerings. Examples of specific topics are plate tectonics, seismology, depositional systems, groundwater hydrology, geochronology, and advanced paleontology. Taught on demand. More than one topic may be taken for credit (maximum 6 hours).

GLY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GLY 495. Senior Seminar (1-3) Prerequisite: Senior standing with a concentration in Geology or consent of instructor. May be repeated one time for credit. One to three hours per week.

GLY 499. Honors Work in Geology (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

ENGINEERING

(See Pre-Professional Programs for Requirements)

Engineering Course Descriptions

(Department of Earth Sciences)

EGN 111. Engineering Graphics (3) Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fasteners, dimensioning, freehand sketching; axonometric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laboratory hours each week.

EGN 211. Land Surveying (3) Prerequisite: Mathematics 111 or consent of instructor. The elements of plane surveying; basic instrument nomenclature, use and adjustment, methods of surveying plots of land using thhe metes and bounds system; and introduction to the public land surveys; methods of basic surveying computation involving horizontal, vertical and angular measurements; legal aspects of surveying (legal term definitions, recording processes, federal, state and local laws and codes); basic methods of subdivision. Two hours of lecture and three hours of laboratory each week.

EGN 212. Route Surveying (3) Prerequisite: Engineering 211 or consent of instructor. The elements of plane route surveying to include the operations involved in horizontally and vertically aligning roadways (highways and railroads) and the computations involved in the various operations; horizontal and vertical curves; procedures peculiar to roads, canals, transmission lines, pipelines, storm and sanitary sewers, urban utility surveys, along with the incidental storm drainage design and layout for certain roadway situations. Two hours of lecture and three hours of laboratory each week.

EGN 221. Geodetic Surveying (3) Prerequisite: Engineering 211. The application of many of the principles of geodesy for the purpose of transitioning from surveys on a plane to surveys on an oblate spheroid (Earth). The use of spherical trigonometry and some of the calculus in geodetic surveys; the N.C. State Plane Coordinate System; some experience in electronic distance measuring; methods of computation and field methods of triangulation, trilateration and traverse; astronomical observations and computations involved to determine latitude, longitude and azimuth (direction) from one point to another. Two hours of lecture and three hours of laboratory each week.

EGN 222. Topographic Surveying and Mapping (3) Prerequisite: Engineering 211. The field and office processes necessary to prepare topographic and hydrographic maps of a specified area. The many methods of data acquisition over land and water areas are examined and practiced during the course to include: radial line surveys, x.y.z. coordinate surveys, aerial surveys and the plane table. The actual preparation of a "live" map from field survey to finished inked map is a primary part of the course. Two hours of lecture and three hours of laboratory each week.

EGN 321. Engineering Statics (3) Prerequisite: Physics 201 and corequisite: Mathematics 212. The study of engineering statics using vector calculus. Basic concepts, forces and equilibrium analysis, distributed forces, centroids, moments of inertia, virtual work, applications to machines, structures, and systems. Three hours each week.

EGN 322. Engineering Dynamics (3) Prerequisite: Engineering 321 and corequisite: Mathematics 213. The study of engineering dynamics using vector calculus. Equations of motion, kinematics, kinetics of mass points and systems of mass points, kinetics and kinematics of rigid bodies. Three hours each week.

ENGLISH

Dr. Byington, *chairman.* Dr. Clifford, Dr. Collier, Dr. Corbett, Dr. Dodson, Dr. Ellis, Mr. Evans, Mr. Fort, Mrs. Foushee, Ms. Huntley, Mr. McCall, Mr. McColl, Ms. McDonald, Dr. MacLennan, Dr. Parish, Mrs. Pearsall, Dr. Rosselot, Dr. Schweninger, Dr. D. Seiple, Dr. J. Seiple, Dr. Stokes, Dr. Sullivan, Dr. Veit, Dr. Walker, Mrs. Wasson, Dr. Waxman, Dr. Wentworth.

The department of English offers a basic preparation in literature, language, and composition, and then special concentrations in Literature and Language, Professional and Creative Writing, and Teacher Preparation.

Core requirements for a concentration in English for the B.A. degree: English 211-212, 223-224, 306, 320 or 323 and an additional writing course. Students with an emphasis in Literature and Language are required to take an additional 15 hours in literature and language courses, including one senior seminar; English 332 or 333, and 3 elective hours (no more than 6 of the 21 hours may be at the 200 level). Students with an emphasis in Professional and Creative Writing are required to take an additional 12 hours in writing courses (no more than 6 hours at the 200 level), 6 hours in literature courses, including one senior seminar, and 3 hours in a language or additional writing course.

Requirements for a concentration in English for the B.A. degree with Teacher Certification: The Core requirements plus English 225 **or** 226, 304, 321, 380 or 381, 382, 495 (Seminar), and 3 elective hours (300 level or above). In the core, the additional writing course must be English 200 and the language course must be English 320. Students will be urged to choose COM 105 **or** 116 as part of the Basic Studies requirements.

Collaterals: 18 hours in another discipline or disciplines selected by student and advisor or provide optimum reinforcement for the student's academic objectives.

A "C" or better grade must be achieved in each English course taken to satisfy requirements of the major.

English Course Descriptions

ENG 100. Foundations of Composition (0) Intensive writing practice and instruction for students needing preparation in the basics of composition. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

ENG 101. Composition (3) Prerequisite: Evidence of competence on the English Placement Test or a grade of "C" in English 100. An introduction to college-level composition. Extensive practice in the techniques of invention, development, organization, editing, and revision, with emphasis on narrative, descriptive, and

expository forms appropriate to everyday personal, business, and academic writing. Three hours each week.

ENG 102. Composition (3) Prerequisite: English 101. College-level composition. Continued practice in the composing process, with emphasis on argumentation and research. Frequent projects in gathering, analyzing, and documenting information from outside sources. Three hours each week.

ENG 110. Introduction to Literature (3) Study of three literary genres—poetry, drama, and short fiction—in terms of basic components and structures. Three hours each week.

ENG 200. Foundations of Creative Writing (3) Prerequisite: English 102 or consent of instructor. Instruction in creative writing as a preparation for teaching on the primary or secondary levels. Includes writing exercises in three genres: poetry, fiction, and drama. Intended primarily for prospective teachers. Three hours each week.

ENG 201. Intermediate College Writing (3) Prerequisite: English 102. Instruction in composing strategies to strengthen organizational, syntactical, and editing skills. Written projects relate to the academic interests of each student. Three hours each week.

ENG 202. Introduction to Journalism (3) Prerequisite: English 102. Introduction to news writing and newspaper organization. Includes writing newsstories, editorials, features, interviews, and profiles. Three hours each week.

ENG 203. Writing About Literature (3) Prerequisite or corequisite: English 102. Practice in ways to write about literature in forms ranging from personal journals to in-class responses to critical essays. Includes readings and instruction in literature. Three hours each week.

ENG 207. Creative Writing (Fiction) (3) Prerequisite: English 102 or consent of instructor. Instruction in writing fiction, including critical evaluation by instructor and class of students' orginal works. Students also critique and relate to their own work the fiction of relevant professional authors. Three hours each week.

ENG 208. Creative Writing (Poetry) (3) Prerequisite: English 102 or consent of instructor. Instruction in writing poetry, including critical evaluation by instructor and class of students' original works. Students also critique and relate to their own work the poetry of relevant professional poets. Three hours each week.

ENG 210. Mythology (3) Prerequisite: English 102. The major mythological systems of Western society—Greek, Roman, and Norse. Mythology of other parts of the world and related material are also considered. Three hours each week.

ENG 211-212. Great British Writers I & II (3, 3) Prerequisite: English 102 211: Writings before 1800; 212: Writings since 1800. Three hours each week.

ENG 219. General Fiction (3) Prerequisite: English 102. A thematic approach to fiction for students who enjoy extensive reading of current novels.

ENG 220. Introduction to the English Language (3) Prerequisite: English 102. A non-technical introduction to the structure, history, and contemporary use of the English language. Provides a thorough background in English grammar. Three hours each week.

ENG 223-224. American Literature I & II (3, 3) Prerequisite or corequisite: English 102. 223: The literature of Colonial and Early America from 1607 to 1820 and of the Romantic era (1820-1855). 224: The literature of American Realism (1855-1900) and of the Twentieth Century (1900-1960). Three hours each week.

ENG 225-226. World Literature I & II (3) Prerequisite or corequisite: English 102. Representative works of world literature (excluding British and American authors) emphasizing, but not limited to, the western literary tradition. English 225: Works from ancient times to about 1500; English 226: 1500 to the twentieth century. Three hours each week.

ENG 230. Women in Literature (3) Twentieth-century literature by and about women. Focus on changes in images and roles of women. Includes fiction, poetry, and essays. Three hours each week.

ENG 240. The Supernatural in Literature (3) Prerequisite or corequisite: English 102. Types of supernatural phenomena in literature, including psychic experiences, the occult, ghosts, werewolves, and vampires. Emphasis on British and American fiction of the nineteenth and twentieth centuries, from Mary Shelley to Stephen King.

ENG 241. Detective Fiction (3) Prerequisite or corequisite: English 102. Major writers of detective fiction from Poe to the present. Development of the mystery form and the evolution of the detective as hero in British and American literature. Three hours each week.

ENG 242. Science Fiction (3) Prerequisite or corequisite: English 102. Study of special conventions that distinguish science fiction from other types of literature (such as fantasy). Considers the contribution of science fiction to the understanding of such current concerns as overpopulation, biological change, automation, and the threat of nuclear war. Works by such authors as Wells, Asimov, Heinlein, Clarke, Bester and LeGuin. Three hours each week.

ENG 243. Fantasy Literature (3) Prerequisite or corequisite: English 102. Study of nonrational phenomena in literature and of the relationship of fantasy to relaity. Considers phenomena such as magic and otherworldly creatures in settings that distinguish fantasy from other types of literature, such as science fiction. Three hours each week.

ENG 244. Literature of the Sea (3) Prerequisite or corequisite: English 102. Study of nautical literature, focusing on varying perceptions of the sea; major themes in nautical literature; uses of the sea as setting, symbol and metaphor. Three hours each week.

ENG 250. Introduction to Folklore (3) Prerequisite or corequisite English 102. A definition and survey of the most common forms of folklore, including folk speech, narratives, music, art, customs and beliefs, with an emphasis upon the

relevance of these materials to the study of literature, history, education, art, the social sciences and other disciplines. Three hours each week.

ENG 290. Themes in Literature (3) Prerequisite or corequisite: English 102. An interdisciplinary study of a significant theme, such as war and peace, justice, love, youth and age, focusing primarily on literary works but also drawing on sources from other fields, including art, music and history. May be repeated once under a different subtitle. Three hours each week.

ENG 300. Introduction to Technical Writing (3) Prerequisite: English 102. Types of writing encountered in professions: resumes, memos, correspndence, proposals, progress reports, technical reports, and oral presentations of technical reports; emphasis on style, form, and organization; adaptable to the student's major field of study. Three hours each week.

ENG 301. Technical Report Writing (3) Prerequisite: English 300 or consent of instructor. Theory and practice of technical writing; emphasis on mid-sized and longer reports, including proposals and feasibility studies, journal articles, professional papers and research studies, and oral presentation of technical reports; adaptable to the student's major field of study. Three hours each week.

ENG 304. Writing for Teachers (3) Prerequisite: English 102. Instruction in writing for teachers of all school subjects (K-12). Forms of exposition and persuasion appropriate to teachers; consideration given to learning and composition theory, the composing process, theories of rhetoric, evalaution, writing development. Three hours each week.

ENG 306. Essay Writing (3) Prerequisite: English 102. Instruction in all major essay modes: narration, description, exposition, critical analysis, and persuasion. Emphasis on mastering prewriting, writing and revision strategies; attention to developing individual style. Appropriate for students in all majors. Three hours each week.

ENG 307. Advanced Creative Writing: Fiction (3) Prerequisite: English 207 or consent of instructor. Instruction in advanced techniques of writing fiction. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 308. Advanced Creative Writing: Poetry (3) Prerequisite: English 208 or consent of instructor. Instruction in advanced techniques of writing poetry. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 310. Theory and Practice of Editing (3) Prerequisite: English 102. An advanced writing course, focusing on revising, editing and copy editing. Techniques and strategies for getting prose ready for publication will be explored. Extensive practice in editing professional and student samples. Three hours each week.

ENG 315. Special Topics in Writing (3) Prerequisite: English 102. A focused study on a particular aspect in composition/rhetoric. Topics may vary from semester to semester but may include classical or medieval rhetoric; the study of style;

the writing of grants; the rhetoric of visualization, art, music, or photography; or the analysis of propaganda and advertisements; theories of writing. Three hours each week.

ENG 320. Introduction to Linguistics (3) Prerequisite: English 102. Important topics in the study of language, including phonological, syntatic, and semantic systems; language change; language acquisition by children; theories of language origin; and animal "language." Three hours each week.

ENG 321. Structure of the English Language (3) Prerequisite: English 102. Study of the grammatical structure of the English language and the process by which we create and comprehend English sentences. Emphasis on recent syntactic models. Three hours each week.

ENG 322. Semantics (3) Prerequisite: English 102. The study of language as it affects our thinking and behavior; language and prejudice; the language of advertising, propaganda, science, and poetry; slanting, euphemisms, jargon, connotations, abstraction. Three hours each week.

ENG 323. History of the English Language (3) Prerequisite: English 102. The development of the English language from Old English to the present; changes in sounds, vocabulary, syntax, meaning, and spelling; formation of American dialects. Three hours each week.

ENG 332. Shakespeare I (3) Prerequisite: English 102. A study of eight to ten plays and selected sonnets (written before 1600). Included are tragedies, comedies, and histories. Three hours each week.

ENG 333. Shakespeare II (3) Prerequisite: English 102. A study of eight to ten plays written after 1600. Included are tragedies, comedies, and histories.

ENG 335. Restoration and Eighteen Century Literature (3) Prerequisite: English 102. Major writers and types of literature between 1600 and 1800. Includes works by Dryden, Swift, and Pope; as well as examples of the periodical essay, early novel, and drama. Three hours each week.

ENG 336. British Romanticism (3) Prerequisite: English 102. Selected poetry and prose of the Romantic period, 1783-1837. Emphasis on developments in poetry, in the role of the artist, and Romantic critical theory. Includes such writers as Blake, Byron Wordsworth, Coleridge, Keats, Shelley, Austen, and Scott. Three hours each week.

ENG 337. Victorian Literature (3) Prerequisite: English 102. English literature from 1832 to 1901. Cultural upheavals as reflected in poetry and prose by such authors as Tennyson, Browning, Arnold, Pater and the Pre-Raphaelites, Dickens, Eliot, and Thackeray. Three hours each week.

ENG 338. British Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes works by British authors such as Conrad, Lawrence, Joyce, Woolf, Yeats, Shaw, and Auden. Three hours each week.

ENG 350. American Romanticism (3) Prerequisite: English 102. Major writers in the American Renaissance, from 1820 to the Civil War, including Whitman, Emerson, Thoreau, Poe, Hawthorne, and Melville. Three hours each week.

ENG 351. American Realism (3) Prerequisite: English 102. Major writers in the period of emerging industrialism and urbanization after the Civil War, including Dickinson, Twain, James, Crane, and Dreiser. Three hours each week.

ENG 352. American Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes works by American authors such as Eliot, Pound, Stevens, O'Neill, Hemingway, Fitzgerald, Porter and Faulkner. Three hours each week.

ENG 353. Southern American Literature (3) Prerequisite: English 102. A study of nineteenth and twentieth century southern literature, ranging from southwestern humor sketches written before the Civil War to recent literature by such authors as Welty, O'Connor, Faulkner, Ellison, Percy, and Williams. Three hours each week.

ENG 354. North Carolina Writers (3) Prerequisite: English 102. Short stories, novels, and poetry by North Carolina writers. Several works reflect upon the life and time of the state. Includes such writers as Charles Chesnutt, O. Henry, Thomas Wolfe, Randall Jarrell, and Gail Godwin. Three hours each week.

ENG 355. Ethnic Literature of the United States (3) Prerequisite: English 102. Literature of various American ethnic groups, with emphasis on Afro-American, Jewish-American, Native American, Hispanic-American, and Asian American literature. Three hours each week.

ENG 361. Studies in the Short Story (3) Prerequisite: English 102. Types of the short story, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 362. Studies in the Novel (3) Prerequisite: English 102. Types of the novel, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 364. Studies in Poetry (3) Prerequisite: English 102. Major types of poetry, with emphasis upon their form, style, and interpretation. Poems from a variety of periods, authors, and traditions. Three hours each week.

ENG 365. Studies in Drama (3) Prerequisite: English 102. A variety of plays representing tragedy, comedy, and modern forms. Works from a variety of periods, authors and traditions with some attention to dramatic criticisms. Three hours each week.

ENG 371. European Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes continental authors such as Kafka, Hesse, Camus, Rilke, Brecht, Akhmatova, and Pasternak. Three hours each week.

ENG 372. Contemporary Literature (3) Prerequisite: English 102. Literature since 1950. Includes such movements and themes as confessional and best poetry, theatre of the absurd, alienation, popculture, and experimentation. Three hours each week.

ENG 373. The Female Tradition in Literature (3) Prerequisite: English 102. Study of literary works by nineteenth century women. Examines evolving women's literary criticism, and distinctly female uses of language in literature. Three hours each week.

ENG 380. Literature for Children (3) Prerequisite: English 102. Exploration of childrens' books in several genres. Intended for present and future parents and teachers of grades 4-9. Three hours each week.

ENG 381. Literature for Young Adults (3) Prerequisite: English 102. An exploration of various genres appropriate for high school students. Intended for present and future parents and teachers of adolescents. Three hours each week.

ENG 382. Varieties of Literary Response (3) Prerequisite: English 102. A range of written and oral responses to poetry, fiction, and drama. Student participation in such approaches as role-playing, collaborative problem-solving, dramatization, visualization, and parody. Three hours each week.

ENG 430. The Age of Chaucer (3) Prerequisite: English 102. A survey of works written in medieval England. Included are *The Canterbury Tales*, selections from Chaucer's other works, and representative works in such genres as chronicle, biography, epic, romance, dream vision, and drama. Three hours each week.

ENG 431. The Age of Elizabeth (3) Prerequisite: English 102. English literature in the sixteenth and early seventeenth centuries. Works studied include poetry by Spenser and Shakespeare; plays by Marlowe and Jonson; and prose by More and Sidney. Three hours each week.

ENG 432. The Age of Milton (3) Prerequisite: English 102. Emphasis on the works of Milton. Also includes works by Donne, Herbert, and Bacon. Three hours each week.

ENG 462. Studies in the Novella (3) Prerequisite: English 102. Types of the novella or short novel, with emphasis upon its distinctive features and development as a genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 463. Studies in Non-fiction (3) Prerequisite: English 102. Types of non-fiction prose, including biography, autobiogrphy, memoirs, journals, and various forms of the essay. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 490. Special Topics in Literature (3) Prerequisite: English 102. The study of a selected theme, movement, period, influence, or genre. Content varies from semester to semester. May be repeated once under a different subtitle. Three hours each week.

ENG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ENG 495. Seminar (1-3) Prerequisite: Junior or senior standing or consent of the chairman. Intensive study of a topic in literature, language, or writing. Emphasis

upon individualized work which may include reports, a longer research project, and appropriate bibliography assignments. Classes limited to fifteen. Required of English majors in the junior and senior year. May be repeated once under a different subtitle.

ENG 499. Honors Work in English (2-3) Prerequisite: Eligibility for honors program. Independent study for honors student.

For 292 and 492, see explanation on p. 70.

ENVIRONMENTAL STUDIES

(Interdepartmental)

Dr. Merritt, *advisor.* Participating disciplines: Biology, Chemistry, Earth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, and Sociology.

Requirements for a concentration in Environmental Studies for the B.A. degree:

Core: (1) Environmental Studies 195, 495; Statistics 205 or 215, and Computer Science 111 or 121. (2) One course from each of four disciplines, selected from: Chemistry 335, 377; Physics 105; Biology 205, 206; Geology 101, 120; Geography 130. (3) One course from each of three disciplines, selected from: Political Science 304, 308; Anthropology 309; Psychology 370 (EVS 370); Economics 325 (EVS 325), 328.

Specialization: A disciplinary concentration requiring a minimum of 20 hours chosen from the approved list of courses in one of the following: Biology, Chemistry, Earth Sciences, Economics, Managerial Science, Marine Science, Mathematical Sciences, Physics, Political Science, Psychology, Sociology.

Approved courses for each discipline are listed below. Courses taken to fulfill core requirements may not count toward the specialization. A "C" or better average on courses taken in the area of specialization is required.

BIOLOGY: BIO 208, 316, 335 with lab, 345 or 347 or 355, 356, 365, 366, 375, 425, 440, 465, 466, 470, 475, 480, 491.

CHEMISTRY: CHM 311-312 with labs, 315-316, 321 with lab or 325 with lab, 335 with lab, 377 with lab, 435 with lab, 445, 465, 475, 476, 485, 491 (environmental research project).

EARTH SCIENCES: (Geology emphasis) GLY 101, 102, 120, 201, 210, 250, 331, 341, 391. (Geography emphasis): GGY 110, 130, 140, 270, 320, 322, 325, 335, 372, 375. (Marine Science emphasis): GLY 150, 250, 391, 450; GGY 230, 322, 333, 335, 432.

ECONOMICS: ECN 320 or 321, 322, 326, 324 or 327, 426, 427, 428, 495; FIN 331.

MANAGERIAL SCIENCE: BUS 310, 311, 313, 314, 355, 356, 358; MKT 340.

MARINE SCIENCE: GLY 150, 450; GGY 333, 432; BIO 208, 345, 362, 365 or 481, 366, 458, 462, 468, 472; CHM 475.

MATHEMATICAL SCIENCES: MAT 231, 325, 335, 361, 423, 425, 435, 461, 471; STT 262, 362, 410; CSC 420.

PHYSICS: PHY 201-202 (corequisite MAT 151-152 or 161- 162), 225, 260, 321, 335, 455, 491 (environmental research project); PHY 170 is recommended as an elective.

POLITICAL SCIENCE: PLS 111, 210, 211, 304, 307, 308, 309, 405, 406.

PSYCHOLOGY: PSY 336, 355, 365, 370, 410, 412, 456, 457, 465.

SOCIOLOGY: ANT 205, 206, 207, 302, 304, 305, 309, 322; SOC 230, 305, 315, 316, 385.

Environmental Studies Course Descriptions

(Interdepartmental)

EVS 120. (Geology 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

EVS 195. Introduction to Environmental Studies (3) Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems. Three hours each week.

EVS 316. (Sociology 316) Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on social evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and related configuration of human communities. Three hours each week.

EVS 325. (Economics 325) Environmental Economics (3) Prerequisite: Economics 125 or 221 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives. Three hours each week.

EVS 370. (Psychology 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior effects of noxious factors in the environment, the psychology of enviornmental design, and the formation and change of attitudes about the environment. Three hours each week.

EVS 490. Senior Project (1-6) Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Enviornmental Studies field, and the preparation of a written report on the findings.

EVS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the Environmental Studies advisor.

EVS 495. Seminar in Environmental Studies (3) Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the

"holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format.

EVS 499. Honors Work in Environmental Studies (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292, and 492, see explanation on p. 70.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HEALTH, PHYSICAL EDUCATION AND RECREATION

Dr. Charles Lewis, *chairman,* Mr. D. Allen, Dr. F. D. Allen, Dr. T. E. Allen, Mr. Brooks, Mr. Chapman, Miss Christoph, Mr. Ellington, Miss Gerdes, Mr. Gibson, Dr. Gladwell, Mr. Guthrie, Dr. Hatcher, Dr. Hollifield, Mr. Honeycutt, Mr. Hood, Mr. Lane, Mrs. J. Lewis, Miss McDaniel, Mr. Middleswarth, Dr. D. Miller, Mr. Scalf, Mr. Tribbett

Requirements for a concentration in Physical Education for the B.A. degree: Physical Education 101, 105, 200 series* (six hours from numbers 1-8 listed below and two additional hours), 201, 216, 217, 235, 301, 305, 320, 340, 349, 355, 360, 386, 415, 420, 435. Required collaterals: Education and Psychology courses required for teacher certification. A "C" or better grade in all required Physical Education, Education and Psychology courses. Students are certified in Physical Education. Students may qualify for add-on certification in health by completing the following additional courses: PED 205, 207, 234.

*Students must complete 200-aquatics *or* satisfy the aquatics competency test.

Physical Education Course Descriptions

(Department of Health, Physical Education and Recreation)

PED 101. Foundations of Physical Activity (2) Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

PED 102. Physical Education Activity (1) Prerequisite: Students planning to enroll in PED 102 sections of Aerobic Dance, Lifeguard Training, Physical Conditioning, Running Fitness, and Weight Training should consult individual instructors about prerequiste requirements. Students may accumulate up to 7 hours credit in Physical Education 102, but are limited to one hour per semester. Three hours each week.

PED 103. Physical Education Activity – Program of Outdoor Pursuits (3) Prerequisite: Physical Education 101 or equivalent. Study of and participation in the skills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area, only once.)

PED 105. Individual Well-Being (3) Major health problems of the day and how they relate to the individual. Three hours each week.

PED 200. Sports Skills (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities and to provide practical experience in the development of instructional materials. Each skills course meets four hours each week for one-half semester.

1. Basketball (1)
2. Dance (1)
3. Gymnastics (1)
4. Soccer (1)
5. Softball (1)
6. Tennis (1)
7. Track and Field (1)
8. Volleyball (1)
9. Archery (1)
10. Aquatics (1)
11. Badminton (1)
12. Field Hockey (1)
13. Football (1)
14. Golf (1)
15. Outdoor Adventure Sports (1)
16. Racquetball/Handball (1)
17. Wrestling (1)

PED 201. First Aid, Safety, and Cardio-Pulmonary Resuscitation (2) A certification course for American Red Cross First Aid and Cardio-Pulmonary Resuscitation. The class will meet for two lecture hours and one lab hour each week.

For 292, and 492, see explanation on p. 70.

PED 205. Reproduction and Sexuality (3) Prerequisite: Physical Education 105. Emphasizes the anatomy and physiology of reproduction, conception, prenatal growth and parturition; relevant issues pertaining to human sexuality, childbearing, and sexual diseases. Three hours each week.

PED 207. Nutrition (3) The main focus of this course will be the application of the principles of nutrition as related to health, various levels of wellness, and practices of health care. Emphasis on basics of sound nutrition, requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads and weight control. Three hours each week.

PED 216. (Biology 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three lab hours each week.

PED 217. (Biology 217) Human Anatomy and Physiology II (3) The study of the human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

PED 234. Principles of Health Education (3) An introduction to the principles of health education planning, organization, and evaluation with emphasis on the school health program. The role of the health educator will be examined with respect to health behaviors, attitudes, and problems. Three hours each week.

PED 235. Principles of Physical Education (3) Introduction to the objectives, history, philosophies, trends, and professionalism of physical education. Three hours each week.

PED 236. Athletic Officiating (3) Rules, officiating techniques, and problems arising in officiating with emphasis on football, basketball, baseball, volleyball, and tennis.

PED 301. Prevention, Treatment, and Rehabilitation of Athletic Injuries (3) Prerequisite: Physical Education 216. A basic course in the management of athletic injuries. Three hours each week.

PED 304. Health and Safety Education, Grades K-9 (3) The scope, development and procedures of health education as it relates to the student, health services and the healthful school environment. Emphasis upon the human sexuality and the teacher's responsibility for first aid and safety education in the school environment. Three hours each week.

PED 305. Curriculum Methods in Health (3) The scope, development and procedures of health education as it relates to the student, health services, and the healthful school environment. Emphasis upon instructional methodology appropriate for health teaching. Includes practicum in teaching. Three hours each week.

PED 320. Methods of Teaching Motor Activity (3) Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicium in teaching. Three hours each week.

PED 335. Readings in Physical Education (3) A comprehensive review of literature in physical education and related areas. Three hours each week.

PED 336. An Approach to Coaching (3) The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature. Three hours each week.

PED 340. Kinesiology (3) Prerequisite: Physical Education 216. Study of neuromuscular and mechanical principles of human motion, with applications being made to movement problems most often found in physical education and sports skills. Three hours each week.

PED 349. (Biology 349) Applied Physiology of Exercise (4) Prerequisite: Physical Education 216 or Biology 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

PED 355. Tests and Measurements in Physical Education (3) Use and interpretation of elementary statistical techniques for evaluation and application of tests

in physical education; review of current tests in motor ability, physical fitness, classification, sport skills, and knowledge. Three hours each week.

PED 360. Motor Learning (3) An introduction to the principles of motor learning, this course is concerned with the analysis and application of physiological and psychological principles related to the learning and performance of motor skills. Two lecture and one laboratory hours each week.

PED 379. Legal Liabilities in Athletics and Physical Education (3) Prerequisite: Junior or Senior level. An introduction to the legal liabilities existing in Physical Education and Athletics. Terminology, procedure, operations of the law and case studies will be studied enabling students to positively confront liability situations should they arise. Emphasis on state laws as well as national laws. Three hours each week.

PED 386. Physical Education in the Primary Grades (K-3) (3) A study of the theory, techniques and methods of developing and implementing a total program of physical education for children in grades K-3. Emphasis on the "movement approach" to learning fundamental motor skills, equipment construction, rhythms and dance, stunts and tumbling, classroom games, and other activities basic to the K-3 program. Three hours each week.

PED 387. Physical Education in the Intermediate Grades 4-6 (3) Methods and materials for developing and conducting a yearly program of physical education for children in grades 4-6. Emphasis on refinement of sports skills through lead-up games, relays and other games of low organization, including activities in gymnastics, dance and fitness development. Three hours each week.

PED 415. Adapted Physical Education (3) Prerequisite: Physical Education 216 and junior or senior standing. Problems relating to the physiological and kinesiological needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he or she is capable. Two lecture and two laboratory hours each week.

PED 416. Laboratory Techniques and Research Methods in Exercise Physiology (3) Prerequisite: Physical Education 349 and consent of instructor. A study of laboratory techniques and research methods used to evaluate physiological response to exercise and training. Primarily a laboratory experience. Three hours each week.

PED 420. Teaching Physical Education (2) Prerequisite: Physical Education 320. (PED 420 must be taken before Education 408 and 409). Individualized, supervised experience in teaching. Experience complemented with weekly seminar on contemporary problems.

PED 421-422-423-424-425-426. Methods of Coaching (2) Emphasis on strategy, fundamentals, techniques, training and related duties. Two hours each week.

421	Baseball	424	Track and Field
422	Basketball	425	Soccer
423	Football	426	Volleyball

PED 435. Organization and Administration of Health and Physical Education (3) Prerequisite: Junior or senior standing. Analysis of problems involved in plan-

ning, organizing, and directing health and physical education programs. Three hours each week.

PED 436. Intramurals (3) Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems. Three hours each week.

PED 440. Selected Topics in Physical Education (3) Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education. Three hours each week.

PED 455. Advanced Tests and Measurements in Physical Education (3) Prerequisite: Physical Education 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics. Three hours each week.

PED 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PED 499. Honors Work in Physical Education (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Requirements for a concentration in Parks and Recreation Management for the B.A. degree:

Core Courses: Recreation 265, 266, 268, 298, 360, 365, 368, 450, 465, 469, 498.

Commercial Recreation Option: Recreation 350, 351, 366, 495. Required collaterals (13 hours): Accounting 201, 203, Business 355, Marketing 340.

Outdoor Recreation Option: Recreation 271, 366, 470. Required collaterals (12 hours): Biology 206 and two of the following: 356, 366, 456, 475.

Therapeutic Recreation Option: Recreation 369, 370, 467, 468; Physical Education 216, 349. Required collaterals (12 hours): Education 260; Psy 347; Sociology 215. A grade of "C" or better on all required Recreation and Physical Education courses.

Recreation Course Descriptions

(Department of Health, Physical Education and Recreation)

REC 265. Introduction to Recreation and Parks (3) The scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services. This course is a prerequisite for all other courses in recreation. Three hours each week.

REC 266. Program Planning for Recreation and Parks (3) Prerequisite: Recreation 265. An introduction to programming for recreation and parks, including the major areas of recreation, planning principles, objectives and evaluation. Program factors, such as scheduling, personnel, facilities, equipment, etc., will be considered. Three hours each week.

REC 268. Social Recreation Leadership (3) Prerequisite: Recreation 265. An introduction to methods and materials used in social recreation leadership in various

settings. In addition to leadership in political subdivision settings, emphasis will be placed on social recreation leadership for special populations and for private and voluntary agencies. Three hours each week.

REC 271. Camp Leadership and Management (3) Prerequisite: Recreation 265 or consent of instructor. Study of the segment of park recreation programs involved with current camp practices, philosophy, leadership and management. Three hours each week.

REC 298. Practicum in Recreation (3) Prerequisite: Recreation 265. Supervised experience in recreation and/or park setting. Will include administrative, supervisory, program leadership training in a recreation setting. Recreation problems in low income areas will be examined along with leadership training in special activities and programs. Three hours each week.

REC 350. Recreation and Commercial Enterprise (3) Identification, development, operation and impact of profit-oriented recreation enterprises. Investigation of feasibility studies, sources of technical assistance, financing, facility planning and development, marketing and managerial requirements. Three hours each week.

REC 351. Travel and Tourism (3) An introduction to the commercial area of the leisure field which is concerned with travel and tourism. Three hours each week.

REC 360. Outdoor Recreation (3) Prerequisite: Recreation 265. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation in these areas. Three hours each week.

REC 365. Administration of Recreation and Parks (3) Prerequisite: Recreation 266 and 298. Administrative practices related to recreation and parks services, including budget preparation; legal aspects of recreation and park services; fees and charges; public relations; recruiting; selecting and training personnel; personnel practices, etc. Three hours each week.

REC 366. Water-Related Recreation and Park Facilities and Programs (3) Prerequisite: Recreation 265. Principles and procedures of developing recreation facilities for water-related actiivities, such as pools, marinas, lake facilities, etc., and water-related programs, such as scuba diving, swimming, skiing, etc. Three hours each week.

REC 367. The Arts and Recreation (3) Prerequisite: Recreation 265. Administrative problems involved in organizing quality cultural arts in recreation and parks departments and other leisure services agencies. Areas to be examined include financing, personnel, facilities, and equipment. Funding possibilities and relationships between the National Endowment for the Arts, State Arts Councils, Local Arts Councils, and Recreation and Parks Departments will also be studied. Three hours each week.

REC 368. Introduction to Therapeutic Recreation and Special Populations (3) Prerequisite: Recreation 265 or consent of instructor. The recreation and parks program for individuals and groups who are ill, handicapped, aged, or in other

special groups conducted by tax-supported, voluntary, or privatee agencies found in the community, hospitals, penal institutions, or other special residences. Three hours each week.

REC 369. Therapeutic Recreation for the Aging (3) Prerequisite: Recreation 368. To acquaint the student with the special wants and needs of the elderly; to provide insight into the physical, mental, social, and emotional problems of the aged. To make the student aware of the important role recreation plays in the lives of the aged. Three hours each week.

REC 370. Adaptive Activities and Facilities for Therapeutic Recreation (3) Prerequisite: Recreation 368. To introduce the student to procedures and methods of adapting recreational facilities, programs and activities to meet the needs of the handicapped. Three hours each week.

REC 450. Conflict Resolution in Recreational Leadership (3) Prerequisite: Recreation 265. An experimental approach to the study of conflict resolution in recreation leadership and management. Three hours each week.

REC 465. Planning of Recreation and Park Areas and Facilities (3) Prerequisite: Recreation 365. Study of planning standards and techniques will be considered. Standards for master plans will also be included. Students will develop plans for a recreation area and/or park as part of this course. Three hours each week.

REC 467. Leisure Education in Therapeutic Recreation (3) Prerequisite: Recreation 368. An overview of the leisure education process as an aspect of therapeutic recreation service delivery. The course encompasses a review of leisure education and strategies for the development, implementation, and evaluation of leisure education programs for persons with disabilities. Three hours each week.

REC 468. Therapeutic Recreation: Program Planning and Implementation (3) Prerequisite: Recreation 368. Advanced level course in programming and program implementation for individuals who are disabled or in other special population groups. Emphasis on sources of funding, community awareness and successful programming techniques. Three hours each week.

REC 469. Research Methods and Practices in Recreation and Parks (3) Prerequisite: Recreation 365. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will be undertaken.

REC 470. Outdoor Recreation Management (3) Prerequisite: Recreation 360. Advanced level course in giving in-depth exposure to management techniques necessary for the administration of major outdoor recreation areas including national park areas, national forest preserves, state parks, county park systems, municipal park systems and commercial areas such as marinas and camp sites. Emphasis on budgeting, personnel management, facility planning and design. Three hours each week.

REC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

REC 495. Seminar in Recreation (1-3) Prerequisite: Recreation 365 or consent of instructor. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

REC 498. Parks and Recreation Internship (6) Prerequisite: Recreation 365. A progression of professional field experiences relating theory to practical experience. Work experiences involving program planning and administrative procedures in county, municipal, institutional and voluntary settings.

REC 499. Honors Work in Recreation (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

HISTORY

Dr. McLaurin, *chairman*. Mr. W. Allen, Dr. Berkeley, Dr. Fink, Dr. Haley, Dr. Kinzer, Dr. McGuire, Dr. Moseley, Dr. Schneider, Dr. Toplin, Dr. Usilton, Ms. Walker, Dr. Watson.

Requirements for a concentration in History for the B.A. degree: History 101, 102, 103, 201, 202; an additional 27 hours in history at the 300-400 level, and an overall "C" average in courses taken within the department. Students may take three hours at the 200 level in addition to History 201 and 202, and are required to take at least three hours at the 400 level, and may count no more than six hours in History 491 and 495 toward the major. Students are required to take at least one upper level course in European, United States, and Third World history (Africa, Asia, Latin American and Middle East). History 490, Senior Seminar, is required of all students. Students are also expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: English, Modern Languages, Philosophy and Religion, Anthropology, Economics, Geography, Political Science and Sociology. History majors working toward certification in Social Studies for secondary school teaching must complete a minimum of 21 hours in Anthrolopolgy, Economics, Geography, Political Science and Sociology with courses in at least 3 areas.

History Course Descriptions

HST 101, 102. Western Civilization (3,3) 101: History of Civilization to 1650. 102: History of Civilization from 1650 to the present. Three hours each week.

HST 103. Introduction to Global History (3) An introduction to the global effects of colonialism, industrialism and nationalism with special emphasis on Asia, Africa, Latin America and the Middle East since 1500.

HST 201, 202. American History (3,3) 201: United States to 1865. 202: United States from 1865 to present. Three hours each week.

HST 237. Women in Modern America (3) A broad survey of the female experience in the twentieth century. This course focuses on three areas which affect the lives of modern women: work, politics and sexuality. Utilizing a comparative model, it explores similarities and differences between the first and second wom-

an's movement, the sexual revolutions of the 1920s and 1960s, and the changing nature of women's work in modern and "post-modern" society. Three hours each week.

HST 261. Afro-American History (3) A concise survey of the major themes and events in the history of black Americans from the colonial period to the present. Three hours each week.

HST 271. The Sea in History (3) Prerequisite: History 101-102 or consent of instructor. The history of mankind's interaction with the sea, focusing on its importance for resources, trade and transport, exploration, and warfare. Three hours each week.

HST 273. Evolution of Warfare (3) Prerequisite: History 101-102 or consent of instructor. The development of war from ancient times to the present, emphasizing its effect upon society. Three hours each week.

HST 275. History of Science Since 1500 (3) An introduction to the history of the major developments in western science from the scientific revolution to the present, including an examination of both the origins of scientific discoveries and their impact on society. Three hours each week.

HST 300. The American Military Experience (3) Prerequisite: History 201-202 or consent of instructor. A survey of the American military experience from the colonial period to the present with emphasis on the wars of America, the evolution and development of military policy, strategy, tactics, and technology; and the relationship of military affairs to the political, social, and economic institutions of America. Three hours each week.

HST 305. The Ancient Near East (3) Prerequisite: History 101-102 or consent of instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations. Three hours each week.

HST 306. Ancient Greece and Rome (3) Prerequisite: History 101-102 or consent of instructor. A study of the civilizations of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana. Three hours each week.

HST 311, 312. History of England (3,3) Prerequisite: History 101-102 or consent of instructor. 311: From the Roman invasion to the Wars of the Roses. 312: From King Henry VIII to the twilight of the British Empire. Three hours each week.

HST 315. History of Ireland (3) Prerequisite: History 101-102 or consent of instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the 19th and 20th centuries. Three hours each week.

HST 316. British Empire and Commonwealth (3) Prerequisite: History 101-102 or consent of instructor. A consideration of the British Empire, evolution of the Commonwealth and the emergence of additional post-World War II areas of independence. Three hours each week.

HST 321. History of Modern France (3) Prerequisite: History 101-102 or consent of instructor. History of France from the French Revolution and Napoleon through the political, economic and social developments of the nineteenth century to the World Wars and colonial wars of the twentieth century. Three hours each week.

HST 323. History of Modern Germany (3) Prerequisite: History 101-102 or consent of instructor. Study of German nationalism. German unification, the Bismarckian empire, Hitler's Third Reich, and the two Germanies since World War II. Three hours each week.

HST 325, 326. History of Russia (3,3) Prerequisite: History 101-102 or consent of instructor. 325: To the Bolshevik Revolution. 326: From the Bolshevik Revolution to the present. Three hours each week.

HST 327. Modern Israel (3) Prerequisite: History 102 or consent of instructor. The origins of the modern state of Israel: the history of Zionism, the Holocaust, and Great Power Diplomacy; evolution of Israel since 1948; political, social, economic, cultural, intellectual, scientific, and technological development; the Arab-Jewish conflict; and Israeli democracy and world politics. Three hours each week.

HST 328. European Social History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. The lives of ordinary people in different regions of Europe, under feudal, monarchial, capitalist, and Marxist societies; the impact of climate, geography, language, religion, education, and work on individuals, families, social groups, and nations. Three hours each week.

HST 329. European Intellectual History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. A survey of the main currents of European thought and their relation to European society in general from the Scientific Revolution to the present. Three hours each week.

HST 330. Womanhood in America: Family, Work and Community Life (3) Prerequisite: History 201-202 or consent of instructor. An examination of American women and women's roles from the colonial period to the present. Three hours each week.

HST 331. American Urban History (3) Prerequisite: History 201-202 or consent of instructor. The transition in America from a pre-industrial rural society to an industrial urban society. This course explores the effect urbanization had upon America's social, political and economic institution and concludes with an examination of how the "revolution" in transportation and technology shaped the design of American cities. Three hours each week.

HST 333. American Social History (3) Prerequisite: History 201-202 or consent of instructor. The impact of social change on American life from colonial times to the present. An examination of changing concepts of ethnicity and racial identification, the growth of religious movements, the effect of industrialization on family life, the impact of urbanization on crime and violence, and the influence of movies and television on mass behavior. Three hours each week.

HST 334. Slavery and Sectionalism (3) Prerequisite: History 201 and 202 or consent of the instructor. A study of slavery as an intellectual and political problem in

the United States with special attention to abolitionism, sectional differences in the 1820-1861 period, and the impact of slavery on the war effort of both the Union and the Confederacy.

HST 335. Diplomatic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. American diplomatic activities and foreign relations since 1775. Three hours each week.

HST 336. Constitutional History of the United States (3) Prerequisite: History 201-202 or consent of instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life. Three hours each week.

HST 337. History of American Thought (3) Prerequisite: History 201-202 or consent of instructor. American thought from the colonial period to the present with emphasis on those ideas having lasting influence on American institutions. Three hours each week.

HST 339. Economic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy. Three hours each week.

HST 341. North Carolina, 1524 to 1835 (3) Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the colonial and federal periods to the Constitution of 1835. Three hours each week.

HST 342. North Carolina, 1835 to the Present (3) Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries. Three hours each week.

HST 346. The Old South (3) Prerequisite: History 201-202 or consent of instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South. Three hours each week.

HST 347. The New South (3) Prerequisite: History 201-202 or consent of instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism. Three hours each week.

HST 351. History of Canada (3) Prerequisite: History 101-102 or History 201-202 or consent of instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations. Three hours each week.

HST 360. History of China (3) Prerequisite: Any two of the following: History 101, 102 or 103; or consent of the instructor. Survey of the history of China: the evolution of characteristic Chinese institutions and modes of thought from antiquity to the present within a wider framework of political, economic and cultural change; Chinese responses to western imperialism in modern times; revolutionary transformation in modern and contemporary China.

HST 361. History of Japan (3) Prerequisite: Any two of the following: History 101, 102 or 103; or consent of instructor. Survey of Japanese history from the earliest recorded times to the present emphasizing Japan's development as a cultural daughter of China: Japanization of Chinese culture and unique aspects of Japanese civilization; the emergence of a modern economy and state economic bases of Japanese militarism-imperialism; developmental characteristics of Japanese capitalism.

HST 365. History of Modern East Asia (3) Prerequisite: History 101-102 or consent of instructor. A survey of modern east Asian history from the mid-nineteenth century to the present with emphasis on the Asian response to western imperialism, institutional continuity and change, international relations, and movements toward independence and modernization. The course focuses on China, Japan and Korea with secondary attention to Southeast Asia in the post-World War II era. Three hours each week.

HST 368. Latin American History (3) Prerequisite: An America or Western Civilization survey course or consent of instructor. The development of South America, Central America, and the Caribbean from the time of the pre-Conquest civilizations to the present. Three hours each week.

HST 371. History of Africa (3) Prerequisite: History 101-102 or consent of instructor. Historical survey of African cultures with emphasis on the establishment of colonial empires, Africa under colonial rule, and modern African independence movements. Three hours each week.

HST 377. Introduction to Public History (3) Prerequisite: History 201 or 202; or consent of the instructor. An applied history research seminar which acquaints students with the various sectors of public history: government/public policy, archives and information management, cultural resource management (preservation and interpretation), media and research organizations. Field trips, guest speakers and a sponsored research project provide practical experience for participants.

HST 378. (GGY 378) Historic Preservation Planning (3) An applied research course which deals with the procedures employed by federal, state, and local agencies in locating, recording, restoring, and preserving American architectural heritage and material cultural resources. Subjects examined include: survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles.

HST 403. Medieval Civilization (3) Prerequisite: History 101-102 or consent of instructor. A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period. Three hours each week.

HST 405. Political History of the Middle Ages (3) Prerequisite: History 101-102 or consent of instructor. A study of the political development of medieval Europe from the decline of the Roman Empire in the West to the emergence of the modern period. Three hours each week.

HST 407. Europe in the Age of the Renaissance (3) Prerequisite: History 101-102 or consent of instructor. Political, economic and social changes during the Renaissance, with special attention to the artistic and intellectual achievements of the age. Three hours each week.

HST 409. Europe in the Age of the Reformation (3) Prerequisite: History 101-102 or consent of instructor. Causes and development of the Protestant Revolution and the Catholic Reformation with examination of the impact of these movements on the political, economic and social institutions of early modern Europe. Three hours each week.

HST 411. Europe: From Monarchy to Revolution (3) Prerequisite: History 101-102 or consent of instructor. Modern Europe from the rise of absolute kings in the seventeenth century to the defeat of the Emperor Napoleon. Emphasis is placed on the wars to gain control of Europe and colonial empire, the development of capitalist finance and a global economy, and the decline of aristocracy, climaxing in the French Revolution and the age of Napoleon. Three hours each week.

HST 413. Europe: The Age of Industry and Empire (3) Prerequisite: History 101-102 or consent of instructor. The origins and development of the industrial revolution in Europe; its effect on politics, population, urbanization and social class consciousness, the establishment of modern colonial empires in the nineteenth century and their place in the world economic order. Three hours each week.

HST 415. Europe and the Struggle for World Mastery (3) Prerequisite: History 101-102 or consent of instructor. The rivalry of Europe's great powers leading to World Wars I and II: the causes, events, and results of those global conflicts; the ensuing political revolutions in the inter-war period; anticipations of decline of the European empires; the spread of democracy and self-determination to certain areas; and European cultural and scientific development in the first half of the twentieth century. Three hours each week.

HST 417. Europe Since 1945 (3) Prerequisite: History 101-10 or consent of instructor. The revival of Europe after the Nazi period and its division by the Cold War; political, social, economic developments on both sides of the "Iron Curtain," decolonialization of Europe's empires; movements for political and economic integration; continuing revolutionary currents; Europe's place in contemporary world politics. Three hours each week.

HST 420. Great Britain 1815-1914: The Victorian Age (3) Prerequisite: History 101 and 102, or consent of instructor. An examination of British society from the conclusion of the Napoleonic Wars to the outbreak of WWI. Major themes considered will include the impact of industrialization and urbanization; the gradual democratization of British politics; the cultural aspects of "Victorianism;" the foundations of British international power; the expansion of the British Empire.

HST 431. The Chinese Revolution (3) Prerequisite: Any two of the following: History 101, 102, or 103; or consent of instructor. The Chinese Revolution from the May 4th Movement (1919) to the present. Special emphasis on the social and economic origins of the revolution, the history of the Communist Movement, the evolution of Mao Zedong's thought, and revolutionary developments in the People's Republic.

HST 441. Colonial History of the U.S. (3) Prerequisite: History 201-202 or consent of instructor. Formation and growth of American colonies to the conclusion of the French and Indian War (1763). Three hours each week.

HST 443. The American Revolution and the Formation of the United States, 1763-1800 (3) Prerequisite: History 201-202 or consent of instructor. Organization of the British Empire, events preceding the Revolution, the war for independence, Confederation era, drafting and ratification of the federal Constitution, politics of the new nation. Three hours each week.

HST 445. The Early United States Republic (3) Prerequisite: History 201-202 or consent of instructor. Era from inauguration of Thomas Jefferson through Jacksonian democracy to the advent of the American Civil War. Three hours each week.

HST 447. The Civil War and Reconstruction (3) Prerequisite: History 201-202 or consent of instructor. The American Civil War and Reconstruction of the South through 1877. Three hours each week.

HST 449. Robber Barons and Reformers, the U.S., 1877-1917 (3) Prerequisite: History 201-202 or consent of instructor. The rise of American industry and the Populist-Progressive response to Urbanization and Industrialization. Three hours each week.

HST 451. Twentieth Century America (3) Prerequisite: History 201-202 or consent of instructor. A study of the United States from 1917 to 1950 with emphasis upon World War I, the Roaring Twenties, Depression and New Deal, World War II, and the origins of the Cold War. Three hours each week.

HST 452. America Since 1950 (3) Prerequisite: History 202 or consent of instructor. Developments in American politics, cultural life, civil rights and foreign policy from the time of the Truman Administration to the present, including the Cold War, Korea, the Vietnam War, Watergate, the energy crisis, the nuclear arms race, feminism, and the "Me Decade." Three hours each week.

HST 480. Topics in Afro-American History (3) Prerequisite: History 201, 202, 261 or consent of instructor. An intensive historical study of selected themes and events in the history of Afro-Americans from the origins of the Atlantic slave trade to the present. Examples of specific topics are: Slavery in the Americas, Blacks and the American Military Tradition, Black Folklore, The Harlem Renaissance and Biographies of Great Afro-American Leaders. Three hours each week.

HST 482. Community Studies (3) Prerequisite: History 201-202 or consent of instructor. Provides an introduction to the methodological and practical application of community studies. Topics include: oral history, folklore, ethnography, museum and archival collection and management and historic preservation. Students will select a research project in cooperation with one of the local museums, historical societies, the public library or another governmental agency. Three hours each week.

HST 490. Senior Seminar (3) Prerequisite: Senior standing. An exploration of historiography and the methodologies of historical research, with an emphasis on the writing of history.

HST 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Students should have a 2.0 grade point average.

HST 495. Seminar (3) Prerequisite: History 101, 102, or 201, 202 as appropriate or consent of instructor. Intensive study of historical topics not regularly covered in other courses.

HST 498. Internship in Applied History (3) Prerequisite: History 101, 102, 201, 202, 377 and at least one other history course of relevant content. Academic training and practical field experience through work with a private historical agency in the three county area in and around Wilmington. Faculty supervision and evaluation of all study and on-site activity. Open to students of junior or senior standing who have been approved by the Advisory Committee for the Intern Program.

HST 499. Honors Work in History (2-3) Prerequisite: Senior standing. Consent of instructor or department chairman. Individual study for honors students.

MARINE BIOLOGY

(See Biological Sciences)

MATHEMATICAL SCIENCES

Dr. Smith, *chairman*. Dr. Alves, Dr. Berman, Dr. J. Brown, Mr. T Brown, Dr. Dankel, Dr. Etheridge, Dr. Frierson, Dr. Greim, Dr. Gurganus, Dr. Herbst, Dr. Jambor, Dr. Karlof, Dr. Lugo, Mr. Lupton, Dr. McLaurin, Dr. Mueller-Roemer, Dr. Nelson, Dr. Norris, Dr. Sadek, Dr. Saksena, Dr. Spackman, Dr. Whipkey.

Requirements for a concentration in Computer Science for the B.S. degree: (See also the admission statement in the Degree Requirements section of the Catalogue.)

Core requirements: Computer Science 121, 122, 231, 241, 242, 332, 334, 360; Mathematics 161, 162, 335; Statistics 262, 362. In addition to the core requirements there are three options below, one of which a student must complete in order to fulfill the degree requirements. In general, enough latitude is allowed in each to accommodate a "double major" with mathematics or business if the student wishes.

Scientific: Computer Science 325, 425, 460; Mathematics 261, 361; Physics 201, 202; and two courses selected from Computer Science 420, Mathematics 435, 436, 461, 462, 471, and Mathematics/Statistics 465.

Systems: Computer Science 325, 342, 410, 442, 460; Mathematics 261, 336; Physics 201, 202.

Business: Computer Science 455; six additional hours at the 300 or 400 level in Computer Science, Mathematics or Statistics approved by the advisor; Accounting 201, 203; Economics 221, 222; Business 314, 355; Finance 335; Marketing 340.

A quality point average of (C) 2.0 or better on all Computer Science courses numbered 200 or higher is required.

Note: Students interested in the degree program in Computer Science are encouraged to begin their mathematics study with Calculus I (MAT 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with MAT 115 or MAT 111-112, as appropriate. Students who place into

MAT 162 are advised to take the Advanced Placement Test to receive college credit for MAT 161.

Computer Science Course Descriptions

(Department of Mathematical Sciences)

CSC 105. Survey of Computer Applications (2) An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library. Two hours each week.

CSC 107. Programming Laboratory—SNOBOL (1) Prerequisite: Computer Science 105 or consent of instructor. Elementary programming techniques for character-string processing and text editing. Emphasis will be placed on the pattern matching facilities of SNOBOL. Two hours each week.

CSC 111. Introduction to Computer Programming Using FORTRAN (3) Prerequisite or corequisite: Mathematics 111 or 115. Algorithms and computer systems, data representation, survey of computer applications, elementary programming techniques in FORTRAN, debugging and verification of programs. Two lecture and two laboratory hours each week.

CSC 121. Introduction to Computer Science I (3) Prerequisite: Mathematics 111 or Mathematics 115, or equivalent. Problem solving methods and algorithms in a modern high-level programming language. Introduces one or more programming environments. Emphasis on programming style and the design, coding, and testing of complete programs. A grade of "C" or better is required for taking any course for which Computer Science 121 is prerequisite. Three lecture and one laboratory hour each week.

CSC 122. Introduction to Computer Science II (3) Prerequisite: Computer Science 121. Continuation of Computer Science 121 with emphasis on character and string processing, elementary data structures, computer graphics, recursion, and use of software tools. A grade of "C" or better is required for taking any course for which Computer Science 122 is prerequisite. Three lecture and one laboratory hour each week.

CSC 125. Language Laboratory—FORTRAN (1) Prerequisite: Computer Science 121. Elementary and intermediate programming techniques in FORTRAN. Computer solution to numeric problems. No credit after completion of Computer Science 111. Two hours each week.

CSC 126. Language Laboratory—PL/1 (1) Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in PL/1. Computer solution to numeric and non-numeric problems. Two hours each week.

CSC 127. Language Laboratory—COBOL (1) Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in COBOL. Computer solution to business oriented problems. Two hours each week.

CSC 128. Interactive Personal Computing (1) Prerequisite: Computer Science 111 or 121. Elementary programming techniques using interactive services. The use of personal computers. Two hours each week.

CSC 207. Language Processing (3) Prerequisite: Computer Science 107. The role of computers as tools in linguistic studies; literary applications of computing: verbal indexes, concordances, authorship controversies; computational linguistics; algorithms for manipulating character strings using the SNOBOL programming language. Three hours each week.

CSC 231. (Mathematics 231) Discrete Structures (3) Corequisite: Computer Science 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours each week.

CSC 241. Introduction to Computer Systems & Assembly Languages (3) Prerequisite: Computer Science 121. Introduction to computer structure. Registers, machine instructions and formats; number and character representation; execution control and addressing techniques. Basic input-output programming; files; procedures, segmentation, and linkage; recursion and re-entrancy; floating-point and string operations. Symbolic and machine-level debugging. Three hours each week.

CSC 242. Digital Logic and Computer Organization (3) Prerequisite: Computer Science 231 and 241. Study of computer system organization. Combinational and sequential circuit analysis and synthesis; medium and large-scale integrated circuits. Register-transfer language and microprogramming; instruction fetch and execution; flow of control. Input-output, controllers, interrupts, communications and codes. Introduction to computer networks. Three hours each week.

CSC 305. Computer Graphics (3) Prerequisite: Computer Science 121 and Mathematics 261. Display memory generation of points, vectors, etc. Interactive versus passive graphics. Analog storage of images on microfilm, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies. Three hours each week.

CSC 325. (Mathematics 325) Numerical Algorithms (3) Prerequisite: Computer Science 111 or 121, Mathematics 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

CSC 332. Data Structures (3) Prerequisite: Computer Science 122 and 231. Study of basic data structures and their applications. Lists and trees; graph algorithms; internal and external sort and search techniques; hashing; analysis and design of efficient algorithms; file processing techniques. Three hours each week.

CSC 334. Programming Languages (3) Prerequisite: Computer Science 332. Formal definition of programming languages including specification of syntax and se-

mantics. Simple statements including precedence, infix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures. Three hours each week.

CSC 342. Operating Systems (3) Prerequisites: Computer Science 242 and 334. Study of supervisory programs. System services and file systems; CPU scheduling; memory management; virtual memory; disk scheduling. Deadlock characterization, prevention, and avoidance; concurrent processes; semaphores; critical sections; snychronization. Distributed systems and communication protocols. Three hours each week.

CSC 360. Formal Languages and Computability I (3) Prerequisite: Computer Science 332. An introduction to theoretical computer science. Topics include regular expressions and finite state concepts; basic automata theory; formal grammars and languages; computability; Turing machines; elementary recursive function theory. Three hours each week.

CSC 365. Switching Theory (3) Prerequisite: Computer Science 231. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes. Three hours each week.

CSC 410. Compiler Construction (3) Prerequisite: Computer Science 360. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping. Three hours each week.

CSC 420. Simulation Techniques (3) Prerequisite: Computer Science 231 and Statistics 362. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of datagenerated by simulation experiments, and validation of simulation models and results. Selected applications of simulation. Three hours each week.

CSC 425. (Mathematics 425) Numerical Analysis (3) Prerequisite: Mathematics 335, 361 Computer Science 325. A thorough treatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations. Selected algorithms will be programmed for solution on computers. Three hours each week.

CSC 442. Advanced Computer Organization (3) Prerequisite: Computer Science 342. Advanced topics in computer organization and architecture. Readings from

the literature contrasting alternative organization schemes as they affect system development. Seminar format. Three hours each week.

CSC 450. Software Engineering (3) Prerequisite: Computer Science 332. Study of the design and production of large and small software systems. Topics include systems engineering, software life-cycle and characterization; use of software tools. Three hours each week.

CSC 455. Data Base Management Systems (3) Prerequisite: Computer Science 332. Introduction to data base concepts, data independence, logical and physical views of data base systems. Data models: hierarchial, network, and relational. Data description languages, query functions, relational algebra. Three hours each week.

CSC 460. Formal Languages and Computability II (3) Prerequisite: Computer Science 360. Advanced topics in theoretical computer science. Theory of computation; languages and syntatics analysis; computational complexity and NP-completeness. Three hours each week.

CSC 475. Topics in Computer Science (3) Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses. Three hours each week.

CSC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

CSC 495. Seminar in Computer Science (1) Prerequisite: Junior or senior standing and consent of instructor.

CSC 499. Honors Work in Computer Science (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

Requirements for a concentration in Mathematics:

Core requirements: Mathematics 161-162, 261, 275, 335, 336, 375, 411; Computer Science 121; Statistics 262-362; Physics 201-202; and at least nine hours at the 300 level or above approved by the advisor in an area related to mathematics. In addition to the core requirements there are three options listed below, one of which a student must complete to fulfill the degree requirements.

I. **B.A. degree with teacher certification in Mathematics:** Mathematics 345, 346. The Education and Psychology courses required for teacher certification satisfy the core requirements of at least nine hours at the 300 level or above in an area related to mathematics.

II. **B.A. degree in Mathematics:** Nine additional hours of mathematics courses at the 300 level or above approved by the advisor.

III. **B.S. degree in Mathematics:** Mathematics 361, either 412 or 415, a mathematical modeling course, and six additional hours of mathematics or statistics courses at the 300 level or above approved by the advisor. The modeling requirement may

be fulfilled by taking any of: Mathematics 436, 462, 471, or Mathematics/Statistics 465. (Note: Some of these courses require additional prerequisites.)

A "C" (2.0) or better average is required for mathematics courses at the 300-400 level.

Note 1: Collateral courses required in the three programs in Mathematics must be chosen from departmentally approved courses which, together with the student's Mathematics courses, comprise a coherent program. Normally a proposed program of study should be submitted to the department for approval prior to the beginning of the student's junior year.

Note 2: Students interested in a degree program in Mathematics are encouraged to begin their mathematics study with Calculus I (MAT 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with MAT 115 or MAT 111-112, as appropriate. Students who place into MAT 162 are advised to take the Advanced Placement Test to receive college credit for MAT 161.

Mathematics Course Descriptions

(Department of Mathematical Sciences)

In general, Mathematics is sequential in nature. Therefore, successful mastery of each course in sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are MAT 111-112, MAT 111-151, MAT 111-112-152, MAT 115-152, MAT 111-112-161-162-261, MAT 115-161- 162-261.

MAT 100. Foundations of Algebra (0) Designed primarily for students not prepared for Mathematics 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

MAT 101-102. College Mathematics for The General Student (3-3) A survey of mathematical ways of thinking designed for the general student. Not intended as preparation for further mathematics courses. Cannot be substituted for MAT 111, 112, or 115. Emphasis on concepts and applications rather than on manipulative skills. Introduces logic, number systems, algebra, geometry, probability, statistics, computers, calculus and the history of mathematics. Three hours each week.

MAT 111. Precalculus I (3) Prerequisite: Satisfactory performance on mathematics placement test. A preparatory course for further mathematics courses. Equations and inequalities; polynomial, exponential and logarithmic functions; graphs; systems of equations and inequalities. Three hours each week.

MAT 112. Precalculus II (3) Prerequisite: Mathematics 111 or equivalent or satisfactory performance on mathematics placement test. Topics from trigonometry and algebra. Includes trigonometric functions, identities and equations; zeros of polynomials; mathematical induction; and sequences. Three hours each week.

MAT 115. Elementary Mathematical Analysis (3) Prerequisite: Satisfactory performance on a mathematics placement test. (This is usually equivalent to an SAT Score above 500 in math, at least a B average in Algebra I and II, Geometry, Advanced Algebra and Trigonometry.) A one-semester treatment of the topics listed under Mathematics 111 and Mathematics 112. Credit will not be given for Mathematics 115 after taking Mathematics 111 or Mathematics 112. Three hours each week.

MAT 141-142. Mathematics for the Elementary Teacher (3-3) (Designed for students majoring in elementary education.) The real number system and related operations, units of measurement, graphs and data analysis, geometry, logic and sets, an introduction to calculators and computers. Three hours each week.

MAT 151-152. Basic Calculus with Applications (3-3) Prerequisite: Mathematics 111 or 115 for 151; Mathematics 112 or 115 and 151 for 152. Differentiation and integration of algebraic and certain transcendental functions, partial differentiation, sequences and series. Greater emphasis is placed on techniques and applications than on theory and derivations. This sequence is not intended for students who need mathematics beyond calculus. Three hours each week.

MAT 161-162. Calculus with Analytic Geometry (4-4) Prerequisite: Mathematics 112 or 115 or equivalent preparation in algebra and trigonometry. Treatment of calculus of a single variable intended for students in the mathematical and natural sciences. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications; equations of curves including the conic sections; transcendental functions; infinite sequences and series. Three hours lecture and two hours laboratory each week.

MAT 231. (Computer Science 231) Discrete Structures (3) Corequisite: Computer Science 121. Introducttion to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours each week.

MAT 261. Multivariate Calculus (4) Prerequisite: Mathematics 162. Calculus of functions of several variables. Polar coordinates and parametric equations, solid analytic geometry, partial derivatives, multiple integrals. Three hours lecture and two hours laboratory each week.

MAT 275. Axiomatic Systems (3) Prerequisite: Mathematics 161. An introductory treatment of propositional and predicate logic and methods of proof. Elementary set theory, relations, functions and topics from axiomatic systems. Precision in the use of mathematics as a language and rigor in proofs are emphasized. Students present and discuss appropriate material to gain experience in communicating mathematics. Three hours each week.

MAT 325. (Computer Science 325) Numerical Algorithms (3) Prerequisite: Computer Science 111 or 121, Mathematics 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary

differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

MAT 335. Linear Algebra and Matrices (3) Prerequisite: Mathematics 162. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications. Three hours each week.

MAT 336. Modern Algebra (3) Prerequisite: Mathematics 275, 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings. Three hours each week.

MAT 345. Modern College Geometry (3) Prerequisite: Mathematics 275 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries. Three hours each week.

MAT 346. Historical Development of Mathematics (3) Corequisite: Mathematics 275 or consent of instructor. Development of mathematics from earliest systems to present century. Personalities involved with the contributions of each. A problem-study approach to give the student some training in research. Thhree hours each week.

MAT 361. Differential Equations (3) Prerequisite: Mathematics 261. Theory, methods of solution, and applications of ordinary differential equations with emphasis on first order equations and linear equations. Additional topics from power series solutions, Laplace transforms, linear systems, and numerical methods. Three hours each week.

MAT 366. Vector Calculus (3) Prerequisite: Mathematics 261 and 335. Multivariable calculus. Partial derivatives; Jacobians; differential and integral vector calculus; multiple integrals; line integrals; theorems of Gauss, Green and Stokes. Three hours each week.

MAT 375. Combinatorics (3) Prerequisite: Statistics 262 and either Mathematics 275 or Computer Science/Mathematics 231. Techniques for counting configurations of objects. Recurrence relations; principle of inclusion-exclusion; graphs, trees, and circuits. Additional topics chosen from Polya's Theorem, generating functions, and network flows. Three hours each week.

MAT 411-412. Advanced Calculus (3-3) Prerequisite: Mathematics 261 and 275. Advanced study of convergence, continuity, differentiation, and integration in R and R^n infinite series. Three hours each week.

MAT 415. Introduction to Complex Variables (3) Prerequisite: Mathematics 411. Complex numbers, complex plane arguments and roots, conjugate coordinates, the Cauchy-Reimann equations. Riemann surfaces, integration of analytic functions, Taylor series, Laurent series, the residue theorem. Three hours each week.

MAT 425. (Computer Science 425) Numerical Analysis (3) Prerequisite: Mathematics 325, 335 and 361. A thorough reatment of solutions of equations, interpolation and approximations, numerical differentiation and integration, and numerical solution of initial value problems in ordinary differential equations.

Selected algorithms will be programmed for solution on computers. Three hours each week.

MAT 435. Linear Programming (3) Prerequisite: Computer Science 111 or 121 and Mathematics 335. Methods and applications of optimizing a linear function subject to linear constraints. Theory of the simplex method and duality; parametric linear programs; sensitivity analysis; modeling and computer implementation. Three hours each week.

MAT 436. Discrete Optimization (3) Prerequisite: Mathematics 435. Theory and applications of discrete optimization algorithms. Transportation problems and network flow problems; integer programming; computer implementation. Three hours each week.

MAT 461. Partial Differential Equations (3) Prerequisite: Mathematics 335 and 361. Theory and applications of linear partial differential equations. Elliptic, parabolic and hyperbolic equations; separation of variables; Fourier series; Green's functions; Sturm-Liouville problems. Three hours each week.

MAT 462. Continuous Mathematical Models (3) Prerequisite: Mathematics 461. Emphasis on the interplay between representative mathematical concepts and selected scientific models. Possible mathematical topics include Fourier analysis, calculus of variations, operator theory, perturbation theory, tensor analysis, stability theory, integral equations, and potential theory. Possible areas of application include classical, fluid, continuous, celestial, and quantum mechanics, wave propagation, and diffusion. Three hours each week.

MAT 465. (Statistics 465) Stochastic Mathematical Models (3) Prerequisite: Mathematics 261 and Statistics 362. The formulation, analysis and interpretation of one or more probabilistic models in an area of scientific or social application, such as statistical mechanics, populations, learning, reliability, communications, inventory, or queues. Concurrent development of relevant portions of the theory of stochastic processes such as Markov processes, renewal processes, stationary processes, or branching processes. Three hours each week.

MAT 471. Projects in Mathematical Modeling (3) Prerequisite: One of Computer Science 420, Mathematics 435, 461, or Mathematics/Statistics 465. Techniques of problem recognition and formulation, and mathematical solution and interpretation of results. Each student will construct a mathematical model under the supervision of the Applied Mathematics Committee and report on the investigation in written and oral form. Seminar format.

MAT 475. Topics in Mathematics (3) Prerequisite: Junior or senior standing and permission of instructor. Topics of current interest in mathematics not covered in existing courses. Three hours each week.

MAT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, a "B" or better average on all mathematics courses taken.

MAT 495. Seminar in Mathematics (1) Discussion of selected topics and problems. One hour each week.

MAT 499. Honors Work in Mathematics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

Statistics Course Descriptions

(Department of Mathematical Sciences)

STT 205. Introduction to Statistics with Applications in the Social Sciences (3) Prerequisite: Mathematics 101, 111, or 115. (Designed for students majoring in the social sciences.) Graphical and numerical methods for univariate data; bivariate data organization and measures of association; contingency table analysis; sampling distributions; estimation and hypothesis testing; introduction to linear regression and correlation. Three hours each week.

STT 205-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 210. Introduction to Statistics with Applications in the Health Sciences (3) Prerequisite: Mathematics 111. Collection, tabulation and graphical representation of data. Measures of location and variation, measures of association and chi-squared distribution, correlation and regression, binomial, Poisson and normal distributions, estimation and tests of hypotheses. Health care statistics, elementary computer skills in analysis of data and interpretation of computer printout. Three hours each week.

STT 215. Introduction to Statistics with Applications in the Natural Sciences (3) Prerequisite: Mathematics 111 or 115. (Designed for students majoring in the natural sciences.) Graphical and numerical descriptive methods; random variables and probability distributions; estimation and hypothesis testing (large and small samples); linear regression and correlation; one-way analysis of variance; contingency tables and goodness of fit. Three hours each week.

STT 215-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 250. Introduction to Sampling Techniques (3) Prerequisite: Any introductory statistics course such as Statistics 205, 210, 215, Business 217, or Psychology 225. An introduction to sampling techniques intended for students in the social, behavioral, natural or health sciences. Simple random sampling, stratified random sampling, cluster sampling, and ratio and regression estimation. Three hours each week.

STT 262. Discrete Probability and Random Variables (2) Prerequisite: Mathematics 151 or 161. An introduction to random variables and probability distributions in the discrete case. Topics include descriptive statistics; elementary combina-

torics; discrete sample spaces and probability; mathematical expection; Tchebyshev's Theorem; conditional probability and independence; Bayes' Theorem; joint, conditional and marginal distributions; common discrete probability models. Introduction to continuous random variables. Two hours each week.

STT 362. Continuous Probability and Statistics (2) Prerequisite: Statistics 262 and Mathematics 152 or 162. Continuous random variables and their distributions. Topics include functions of random variables; estimation and tests of hypotheses; regression and correlation; least square curve fitting. Two hours each week.

STT 410. (Marine Biology 510) Applied Statistical Methods (3) Prerequisite: Statistics 205 or 215, or the equivalent. After a review of elementary statistics, the following major areas are studied: non-parametric methods; analysis of variance and experimental design and regression analysis. Three hours each week.

STT 430. Introduction to Non-Parametric Statistics (3) Prerequisite: Statistics 362. Theory and methods of non-parametric statistics in the one- and two- sample problems and their comparisons with standard parametric procedures. Non-parametric tests for comparing more than two samples; tests of randomness and independence. Three hours each week.

STT 440. Linear Models and Regression Analysis (3) Prerequisite: Mathematics 261 and 335 and Statistics 362. Theoretical introduction to the general linear model and its application to simple linear regression and multiple regression. Estimation and hypothesis testing of model coefficients; residual analysis; analysis of covariance. Three hours each week.

STT 465. (Mathematics 465) Stochastic Mathematical Models (3) Prerequisite: Mathematics 261 and Statistics 362. The formulation, analysis, and interpretation of one or more probabilistic models in an area of scientific or social application, such as statistical mechanics, populations, learning, reliability, communications, inventory, or queues. Concurrent development of relevant portions of the theory of stochastic processes such as Markov processes, renewal processes, stationary processes, or branching processes. Three hours each week.

STT 466-467. Mathematical Statistics (3-3) Prerequisite: Mathematics 261 and Statistics 362. A rigorous introduction to mathematical statistics. Univariate and multivariate probability distributions; conditional andd marginal distributions; theory of estimation and hypothesis testing; limiting distributions and the central limit theorem; sufficient statistics and the exponential class of probability density functions. Three hours each week.

STT 475. Topics in Statistics (3) Prerequisite: Senior standing or permission of instructor. Topics of current interest in Statistics not covered in existing courses. Three hours each week.

STT 491. Directed Individual Study (1-3) Prerequisite: Junior or senioor standing, consent of the department chairman, and a "B" or better average on all mathematical sciences courses taken.

STT 499. Honors Work in Statistics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

MILITARY SCIENCE (ARMY ROTC)

(Department of Military Science)

The Army Reserve Officer's Training Corps at The University of North Carolina at Wilmington provides men and women who meet the physical and mental requirements the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Transfer and graduate students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

The Basic Course

MLS 101. Basic Military Skills I (1) An introduction to marksmanship, rappeling, self defense, drill and ceremonies, customs of the service and the organization of the Army. One laboratory hour each week.

MLS 102. Basic Military Skills II (1) First aid, survival skills, water operations, rope bridges and leadership. Skills are practiced in an outdoor environment. One laboratory hour each week.

MLS 201. Small Unit Leadership I (1) Prerequisite: Military Science 101 and 102, or permission of instructor. Introduction to small unit leadership, physical readiness training, characteristics and employment of US Infantry weapons. Also includes unit hot and cold weather injury prevention and the conduct of inspections. One laboratory hour each week.

MLS 202. Small Unit Leadership II (1) Prerequisite: Military Science 201 or permission of instructor. Basic map reading, day and night land navigation and orienteering in an outdoor environment. Introduction to the principles of war. One laboratory hour each week.

MLS 211. Basic Camp (4) Six-week camp held at Ft. Knox, Kentucky, which is used to satisfy basic course prerequisite for enrollment into Advanced ROTC. Emphasis is on physical fitness, marksmanship, leadership training, tactical training of the individual soldier, first-aid, and the purpose and function of nuclear, biological, and chemical warfare equipment. Dismounted drill, military courtesy and the wearing of the Army uniform are also examined.

The Advanced Course

Prerequisite: One of the following: Three years of JROTC, a veteran with a favorable reenlistment code, completion of the Basic Course or Military Science 211, or the National Guard or Army Reservist Junior who has finished basic training. Students must maintain a 2.0 grade point average, pass a physical examination and be a US citizen.

MLS 301. Advanced Military Skills (3) Prerequisite: Military Science 202. Land navigation, terrain analysis, NBC defense, communications procedures, first aid, combat intelligence. Includes an overview of the Soviet Army and a discussion of the role of the NCO in the US Army. One laboratory hour each week.

MLS 302. Small Unit Tactics (3) Prerequisite: Military Science 301. A continuation of Military Science 301, designed to provide the student with practical military skills including military symbols, squad and platoon tactics and a review of communications, weapons, and first-aid. There is a one-hour leadership laboratory held each week which is mandatory for all cadets.

MLS 311. Advanced Camp (0) Six week camp at Ft. Bragg, North Carolina. Advanced leadership techniques, squad and platoon tactics, tactical training of the individual soldier, land navigation, physical fitness, first-aid and NBC skills. In addition, students will be evaluated on their performance as potential junior officers throughout camp.

MLS 401. Staff and Management (3) Prerequisite: Military Science 301, 302. A study of the organization and functions of the military staff, i.e., the Commander, the Personnel Officer, the Intelligence Officer, the Operations Officer and the Supply Officer. Students prepare training schedules and present instruction to basic course cadets during leadership laboratory.

MLS 402. Military Justice (3) Prerequisite: Military Science 401. Advanced military subjects to include the military system of justice; also includes counseling techniques, unit administration, and methods of written and oral communications. There is a one-hour leadership laboratory conducted each week.

Military Science Students who are enrolled in the advanced course must also take History 300 (the American Military Experience), and Philosophy and Religion 215 (Military Ethics), prior to commissioning. Cadets are also required to elect one of the following:

1. Political Science 111—Introduction to Political Science (3)
2. Psychology 145—Psychology Applied to Human Life (3)
3. Sociology 105—Introduction to Sociology (3)
4. Anthropology 105—Introduction to Anthropoloogy (3)

Cadets must also have one year of English composition, a management course, and National Security policy, i.e., Political Science 423 (3) within the first 10 years of federal service. Only 13 credit hours of Military Science courses may count toward graduation.

MEDICAL TECHNOLOGY

(See Professional Programs)

MODERN LANGUAGES

Dr. Beeler, *chairman*. Mrs. Bellamy, Dr. Lapaire, Mr. Lowe, Dr. J. Mount, Dr. T. Mount, Dr. Perez, Dr. Sparks, Mrs. Stites, Dr. Woodhouse.

A student who offers two high school units in French, German or Spanish, who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose language placement test scores and high school language grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more high school units in French, German, or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

The Department of Modern Languages offers the B.A. degree in French or Spanish.

Requirements for a concentration in French for the B.A. degree: Completion of all 300 level courses in French and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305; History 101 and 102, one course in English literature; and one additional foreign language through the intermediate level.

French Course Descriptions

(Department of Modern Languages)

FRH 101-102. Elementary French (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French; reading, writing, and basic conversation. Three hours each week. Fall and Spring.

FRH 105. French for Tourists (3) General interest course, but designed specifically for those planning to travel in a French- speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Fall and Spring.

FRH 201-202. Intermediate French (3-3) Prerequisite: French 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations of grammatical points when necessary. Three hours each week. Fall and spring respectively.

FRH 305. Conversation and Composition (3) Prerequisite: French 202 or equivalent. Intensive training in spoken and written French. Three hours each week. Fall.

FRH 306. Advanced Grammar (3) Prerequisite: French 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level. Three hours each week. Fall.

FRH 307. Phonetics (3) Prerequisite: French 202 or equivalent. Various speech phenomena; practice in phonetic transciption, pronunciation, and intonation; required of those preparing to teach at the high school level. Three hours each week. Spring.

FRH 311, 312. French Civilization (3,3) Prerequisite: French 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present. Three hours each week. Fall and spring respectively.

FRH 321, 322. Survey of French Literature (3,3) Prerequisite: French 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring respectively.

FRH 336. Explication De Texte (3) Prerequisite: French 305 or equivalent. Training in French textual criticism; oral and written reports. Three hours each week. Spring.

FRH 405. Advanced Conversation and Composition (3) Prerequisite: French 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching. Three hours each week. Offered on demand.

FRH 425. French Literature of the Sixteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports. Three hours each week. Fall 1987 and alternate years.

FRH 426. French Literature of the Eighteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau, and others; oral and written reports. Three hours each week. Fall 1987 and alternate years.

FRH 430. The French Novel of the Twentieth Century (3) Prerequisite: French 322. Readings, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports. Three hours each week. Spring 1987 and alternate years.

FRH 435. The Nineteenth Century French Novel (3) Prerequisite: French 322. Readings, discussion and analysis of major novels; romanticism, realism, and naturalism. Three hours each week. Fall 1986 and alternate years.

FRH 436. French Classicism (3) Prerequisite: French 322. Readings, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Moliere. Three hours each week. Fall 1986 and alternate years.

FRH 437. French Lyric Poetry from Villon to Baudelaire (3) Prerequisite: French 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports. Three hours each week. Spring 1987 and alternate years.

FRH 438. Masterpieces of French Drama (3) Prerequisite: French 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports. Three hours each week. Spring 1986 and alternate years.

FRH 439. Masterpieces of French Prose Fiction (3) Prerequisite: French 322 or equivalent. Representative works of imaginative French prose from the 17th century to the present; oral and written reports. Three hours each week. Spring 1986 and alternate years.

FRH 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

FRH 495. Seminar in French Literature (1-3) Prerequisite: French 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

FRH 499. Honors Work in French (2-3) Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

Requirements for a concentration in Spanish for the B.A. degree: Spanish 305, 306, 307, 311, 312, 321, 322, and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305, History 101 and 102, one course in English literature, and one additional foreign language through the intermediate level.

Spanish Course Descriptions

(Department of Modern Languages)

SPN 101-102. Elementary Spanish (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation. Three hours each week. Fall and spring.

SPN 105. Spanish for Tourists (3) General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audiovisual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Fall and spring.

SPN 201-202. Intermediate Spanish (3-3) Prerequisite: Spanish 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion, and others. Oral discussion to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary. Three hours each week. Fall and spring respectively.

SPN 209. Spanish Literature in Translation (3) Study of representative works from the literature of Spain. Readings and class discussions in English. Three hours each week. Fall 1987 and alternate years.

SPN 210. Spanish-American Literature in Translation (3) Study of representative works from the literature of Spanish America. Readings and class discussion in English. Three hours each week. Spring 1986 and alternate years.

SPN 211. Spain Today (3) An examination of the institutions and social fabric of contemporary Spain as they evolved from raditional roots, including units on history, politics, regional culture, literature, music, art, customs and economic resources. Readings and class discussions in English. Three hours each week. Fall 1986 and alternate years.

SPN 212. Latin America Today (3) An examination of the institutions and social fabric of contemporary Latin America as they evolved from traditional roots, including units on history, politics, indigenous cultures, literature, music, art, customs, and economic resources. Readings and class discussions in English. Three hours each week. Spring 1986 and alternate years.

SPN 304. Business Spanish (3) Prerequisite: Spanish 202 or equivalent. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish-speaking countries are included. Three hours each week. Spring.

SPN 305. Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Intensive training in spoken and written Spanish. Three hours each week. Fall.

SPN 306. Advanced Grammar (3) Prerequisite: Spanish 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level. Three hours each week. Fall.

SPN 307. Phonetics (3) Prerequisite: Spanish 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level. Three hours each week. Spring.

SPN 311, 312. Spanish and Spanish-American Civilization (3,3) Prerequisite: Spanish 202 or equivalent. Geographical, historical and cultural aspects of Spain (311) and Spanish America (312). Three hours each week. Fall and spring respectively.

SPN 321, 322. Survey of Spanish Literature (3,3) Prerequisite: Spanish 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring respectively.

SPN 405. Advanced Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching. Threee hours each week. Offered on demand.

SPN 421, 422. Spanish-American Literature (3,3) Prerequisite: Spanish 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry. Three hours each week. Fall and spring respectively. 1986-87 and alternate years.

SPN 430. Spanish Literature of Middle Ages (3) Prerequisite: Spanish 322 or equivalent. Literature of medieval Spain. Three hours each week. Fall 1986 and alternate years.

SPN 431. Golden Age Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature of the sixteenth and seventeenth centuries. Three hours each week. Spring 1987 and alternate years.

SPN 432. Modern Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the beginning of the eighteenth century to the Generation of 1898. Three hours each week. Fall 1987 and alternate years.

SPN 433. Contemporary Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the Generation of 1898 to the present. Three hours each week. Spring 1986 and alternate years.

SPN 434. Cervantes (3) Prerequisite: Spanish 322 or equivalent. *Don Quixote* and other selected works. Three hours each week. Fall 1986 and alternate years.

SPN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

SPN 495. Seminar in Spanish Studies (1-3) Prerequisite: Spanish 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

SPN 499. Honors Work in Spanish (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

German Course Descriptions

(Department of Modern Languages)

GER 101-102. Elementary German (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation. Three hours each week. Fall and spring respectively.

GER 201-202. Intermediate German (3-3) Prerequisite: German 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and expand his knowledge of the language. Individual projects relating to the student's major field of interest. Three hours each week. Fall and spring respectively.

GER 305. Conversation and Composition (3) Prerequisite: German 202 or consent of instructor. Intensive training in spoken and written German. Three hours each week. Fall 1986 and alternate years.

GER 321, 322. Survey of German Literature (3,3) Prerequisite: German 202 or consent of instructor. Extensive readings covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. 321: Literature through Goethe. 322: Literature beginning with the Romantiker. Three hours each week. Fall and spring respectively. 1987-88 and alternate years.

GER 350. Masterpieces of German Literature in English Translation (3) Reading, discussion, and analysis of representative works by major German authors: Lessing, Goethe, Schiller, Kleist, Hebbel, Hauptmann, Mann, Hesse, and others. Knowledge of German not required. Three hours each week. Spring 1987 and alternate years.

GER 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

Modern Language Course Descriptions

(Department of Modern Languages)

MLN 305. Romance Linguistics (3) Prerequisite: French 307 or Spanish 307 or equivalent. Origins of French and Spanish. Historical phonology, morphology and syntax; some attention to comparative and applied linguistics. Three hours each week. Spring.

Portuguese Course Descriptions

(Department of Modern Languages)

PRT 101-102. Elementary Portuguese (3-3) Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal. Three hours each week. Fall and spring respectively.

PRT 201-202. Intermediate Portuguese (3-3) Prerequisite: Portuguese 102 or equivalent. 201: A thorough and practical review and summarization of modern Portuguese. Introduction to readings of literary and intellectual value, as well as some materials of social and political interest. Continuation of the aural-oral practice in class. 202: Emphasis on reading for the student in subjects of various types. Materials drawn from fields such as history, politics, sociology, geography, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief grammatical explanations when necessary. Three hours each week. Fall and spring respectively.

MUSIC

(See Creative Arts)

PHILOSOPHY AND RELIGION

Dr. Megivern, *chairman*. Dr. Altrichter, Dr. Isen, Dr. McGowan, Dr. Rafalko, Dr. Schmid, Dr. Shinn.

Requirements for a concentration in Philosophy and Religion for the B.A. degree:

I. **B.A. degree with emphasis in Philosophy:** Philosophy and Religion 101, 103, 110, 115, 201, 202, 400, and 15 additional hours including at least 9 at the 300-400 level.

II. **B.A. degree with emphasis in Religion:** Philosophy and Religion 101, 103, 110, 230 and either the Biblical sequence (235, 236) or the History sequence (238, 240) plus 400 and 15 additional hours including at least 9 at the 300-400 level.

Philosophy Course Descriptions

(Department of Philosophy and Religion)

P&R 101. Invitation to Philosophical Thinking (3) An introduction to various philosophers and philosophical problems from historical, critical, and other perspectives. Three hours each week.

P&R 110. Introduction to Logic (3) Introduction to the principles of logic including the rules of deduction, the categorical syllogism, induction, and fallacies. Initiation in computer logic programs. Three hours each week.

P&R 115. Introduction to Ethics (3) An introduction to fundamental principles, theories, and problems in ethics. Three hours each week.

P&R 201. History of Western Philosophy I (3) A survey of Western philosophical thought in ancient and medieval times. Emphasis on the Greek origins of the philosophical tradition. Readings from the Pre-Socratics, Plato, Aristotle, Roman philosophy and such Christian thinkers as Augustine and Thomas Aquinas. Three hours each week.

P&R 202. History of Western Philosophy II (3) A survey of Western philosophical thought from the beginning of the modern era to the present. Emphasis on the rationalist and empiricist traditions. Readings from such philosophers as Descartes, Spinoza, Locke, Hume, Kant and Russell. Three hours each week.

P&R 205. American Philosophy (3) A survey of American philosophical thought from colonial times to the present. Readings from such American thinkers as Jonathan Edwards, the Federalist authors, Thoreau, James, Dewey and Quine. Three hours each week.

P&R 211. Toward a Contemporary Philosophy of Man (3) An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology. Three hours each week.

P&R 213. Existentialism (3) An introduction to major themes in existential thought such as freedom, authenticity, death of God, the meaning of life. Primary source readings from existential authors, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Marcel. Three hours each week.

P&R 215. Applied Ethics (3) Examination of the principles and problems in the application of ethics to a particular area of concern. Topics will vary from one course offering to another. (Ethics in the World of Business; Bioethics; Military Ethics). Three hours each week.

P&R 218. Symbolic Logic (3) Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus, consistency and completeness proofs, and mathematical induction. Three hours each week.

P&R 220. Philosophy & Science Fiction (3) A survey of the major philosophical themes explored in contemporary science fiction. Topics covered will include the nature and limits of science and technology, human nature, and the viability of alternative political arrangements. The emphasis will be on learning to identify

the philosophical themes that underlie much of contemporary science fiction and to use these to develop a better understanding of the modern world. Readings will include both fiction and contemporary philosophy.

P&R 302. Plato (3) Prerequisite: Philosophy and Religion 101 or 201. Study of the Dialogues of Plato. Analysis of texts; contemporary interpretations. Three hours each week.

P&R 303. Aristotle (3) Prerequisite: Philosophy and Religion 101 or 201. An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation. Three hours each week.

P&R 305. Medieval Philosophy (3) A survey of Islamic, Jewish and Christian philosophical thought in medieval times. Readings from such thinkers as Augustine, Avicenna, Averroes, Maimonides and Thomas Aquinas. Three hours each week.

P&R 310. (Political Science 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: Natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality. Three hours each week.

P&R 313. Social and Political Philosophy (3) Prerequisite: Philosophy and Religion 101, 115, or consent of instructor. An exploration of philosophical issues and concepts central to an understanding of social and political life, e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest. Three hours each week.

P&R 316. The Philosophy of Art (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Investigation and exploration into both traditional and contemporary theories regarding the philosophy of art and its associated problems. Visual Arts, such as painting, sculpture, film, etc., will be examined. Three hours each week.

P&R 317. Epistemology (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues in theory of knowledge: nature of knowledge; reasoning, judgment; truth, certainty and probability. Three hours each week.

P&R 318. Metaphysics (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues and positions concerning the nature of reality: theories of being, substance, causality. Three hours each week.

P&R 320. Philosophy of Mind (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Selected readings drawn from classical and/or contemporary sources bearing on problems of the self, such as the issue of personal identity and the concept of a person, the problem of the relation of mind and body and the question of the nature of consciousness. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101. Examination of the basic problems found in Western philosophy concerning

religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 345. Philosophy of Science (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Fundamental issues in the philosophy of science; the nature of scientific method; modes of verification and the role of paradigms. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior or senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors in junior or senior year; open to qualified non-majors.

P&R 401. The Philosophy of Immanuel Kant (3) Prerequisite: Philosophy and Religion 101 or 202. An examination of the thought and influence of Kant in his three great critiques, especially the first, *the Critique of Pure Reason*, as well as in his *Groundwork of the Metaphysics of Morals*. Three hours each week.

P&R 405. Contemporary Philosophical Thought (3) Prerequisite: Philosophy and Religion 101 or 202. Primary source study of the various philosophers of the 20th century, representing the major schools or movements. Three hours each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Religion Course Descriptions

(Department of Philosophy and Religion)

P&R 103. Introduction to Religion (3) Religion as a field of study; major modes of religious expression; chief issues in religious thought and experience; the search for method since the Enlightenment critique; contemporary developments.

P&R 140. Research Tools for Historical and Textual Criticism—Hebrew (3) Basic study of the Hebrew language with special attention to that of the Old Testament. Three hours each week.

P&R 141. Research Tools for Historical and Textual Criticism—Greek (3) Basic study of the Greek language with special attention to that of the New Testament. Three hours each week.

P&R 230. Judaism, Christianity and Islam (3) Survey of the three major Abrahamic faiths; the origins, beliefs and practices of these "people of the Book;" history of their interactions and influence on Western culture. Three hours each week.

P&R 231. Primitive and Classical Religions (3) A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe. Three hours each week.

P&R 232. Oriental Religions (3) A survey of Hinduism, Buddhism, Taoism, and Confucianism; historical aspects, basic insights, texts, relevancy to contemporary man. Three hours each week.

P&R 235. Introduction to the Old Testament (3) Historical study of the Hebrew, Canaanite, Sumerian, Babylonian, and Egyptian cultures, based upon primary literary and archaeological sources. Three hours each week.

P&R 236. Introduction to the New Testament (3) Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community. Three hours each week.

P&R 238. History of Christianity I: Early and Medieval (3) Survey of the basic development of the Christian church from its foundation to the Protestant Reformation. Emphasis on major thinkers and pivotal events that determined the historical trends.

P&R 240. History of Christianity II: Modern (3) Survey of the history of Christianity from the Reformation to the present. Accent on the contributions of the chief theologians and the particular problems raised by "modernity" since the 17th century. Three hours each week.

P&R 242. Religion in America (3) A survey of religious thought from colonial times to the present; representative Protestant, Catholic, and Jewish thinkers; the phenomenon of "civil religion," church involvement in social and political issues. Three hours each week.

P&R 243. Afro-American Religion (3) Study of the religious life of black American communities, with concentration on independent traditions, sects, cults, and a sampling of major thinkers and issues. Three hours each week.

P&R 255. Historical Geography of Middle East (Biblical Era) (3) Prerequisite: Geography 145 or Philosophy and Religion 235 or consent of instructor. Geographical, archaeological, historical, and geological investigation of the physical environment and cultural landscapes that provide the settings for the evolution of the population, economics, and cultures of southwestern Asia.

P&R 334. Old Testament Literature (3) Analysis and interpretation of a particular part of the Hebrew Scriptures. Topics will vary from one course offering to another. (The Torah; the Prophets; the Writings). Three hours each week.

P&R 336. New Testament Literature (3) Analysis and interpretation of a particular part of the New Testament. Topics will vary from one course offering to another. (The Gospels; the Acts of the Apostles; the Johannine works; the Letters of Paul). Three hours each week.

P&R 337. Apocrypha and Pseudepigrapha (3) Prerequisite: Philosophy and Religion 235 or 236. Analysis of the major Jewish and Christian writings related to but excluded from the Bible, including histories, apocalypses, testaments, prayers, moral tales, and wisdom books.

P&R 339. Psychology of Religion (3) A history of the interaction of modern psychology with the Western religious tradition from William James to the present; Freud and Jung, Allport and Menninger, Tillich and May, Hiltner and Pruyser, on such areas as faith and doubt, prayer and prejudice, symbol and guilt, authority and integration of personality. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101 or 103. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 352. Southern Religion (3) A study of religion in the Old South until 1865. Topics include: revivalism; the system of slavery; the Southern way of life; and the religious beliefs and practices of blacks and whites. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior and senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors.

P&R 421. Contemporary Religious Thought (3) Prerequisite: Philosophy and Religion 103. Primary source study of principal religious thinkers of 20th century, especially within Judaism and Christianity. Three hourss each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary source of student-selected philosophic and/or religious problems.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

PHYSICAL EDUCATION

(See Health, Physical Education and Recreation)

PHYSICS

(See Chemical and Physical Sciences)

POLITICAL SCIENCE

Dr. Dixon, *chairman*. Dr. Ahmad, Dr. Johnston, Dr. Jones, Dr. Lowery, Dr. Sheridan, Dr. Wagoner.

Requirements for a concentration in Political Science for the B.A. degree: Thirty-six hours of Political Science which must include 101-102, 111, 210 and 211. Eighteen hours must be at the 300-400 levels and at least one 300-400 level course must be taken in each of the following sub-fields: American Government and Politics, Political Theory and Methodology, International Relations, and Comparative Government.

A "C" or better average on all 300-400 level Political Science courses.

Required collaterals: Twenty-four hours selected from at least four of the following disciplines: Anthropology, Economics, Environmental Studies, Geography, History, Psychology, and Sociology. In addition, a research skill is required. This can be demonstrated by either of the following methods: passing the Statistics in the Social Sciences course offered by the Mathematical Science Department or passing six semester hours in one of the modern foreign languages.

Students planning to do graduate work are urged to study a modern foreign language and acquire a basic knowledge of Computer Science, Statistics and Mathematics through the calculus.

Political Science Course Descriptions

(Department of Political Science)

PLS 101-102. American National Government (3-3) 101 focuses upon basic principles, institutions and functions such as federalism, separation of powers, civil liberties, and judicial review. 102 introduces the political environment of public opinion, political parties and interest groups and traces its impact upon national policy areas, such as civil rights, the economy, and national defense.

PLS 111. Politics and Government in Global Perspective (3) A survey from a cross-national, comparative perspective of politics and governmental institutions within and among nation-states. Attention will also be given to the role of political theory and ideology in the governance of states. Three hours each week.

PLS 202. Contemporary Political Issues (3) A critical examination of selected contemporary domestic and international policy issues.

PLS 206. American State Government and Politics (3) A survey and analysis of the organization, functions, and political processes of the American states. Three hours each week.

PLS 207. American Urban Government and Politics (3) A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics. Three hours each week.

PLS 210-211. Research Methods in Political Science (3-3) An introduction to the rationale and application of basic methods of political research. PLS 210 focuses on library research – the information sources of government and politics and how to use them. PLS 211 introduces quantitative methods – the principles, applications, and limitations of statistical and computer analysis of political phenomena. Three hours each week.

PLS 300, 301. American Constitutional Law (3,3) Prerequisite: Political Science 101. An intensive study of the Supreme Court decisions which have contributed to the contemporary interpretation of the United States Constitution. The treatment is analytical rather than historical. 300 is concerned with decisions involving the powers of the judicial, executive and legislative branches of the national government, the relationships among these branches, and the federal system. 301 is a study of decisions involving the Bill of Rights, the 14th Amendment and other provisions which protect individual rights and liberties. Three hours each week.

PLS 302. Public Opinion and Democracy (3) Prerequisite: Political Science 111 or 101 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience. Three hours each week.

PLS 303. Elections and Voting Behavior (3) Prerequisite: Political Science 111 or 101 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II. Three hours each week.

PLS 304. Introduction to Public Policy Analysis (3) Prerequisite: Political Science 101. A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation.Three hours each week.

PLS 307. The American Legislature (3) Prerequisite: Political Science 101. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process. Three hours each week.

PLS 308. Public Administration (3) Prerequisite: Political Science 101. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management. Three hours each week.

PLS 309. The American Chief Executive (3) Prerequisite: Political Science 101. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor. Three hours each week.

PLS 310. (Philosophy 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality. Three hours each week.

PLS 311. (Sociology 311) Techniques of Public Opinion Polling (3) Basic skills in all phases of public opinion polling; issue focus; questionnaire construction; sample selection, interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills. Three hours each week.

PLS 313. Early Political Thought (3) An introduction to the origin and development of political theory from the 5th Century B.C. through the medieval era. Emphasis will be placed on the political ideas of Plato, Aristotle, the Epicureans, the Stoics, Cicero, Augustine, medieval philosophers, and Aquinas in order to discover the recurring themes of political inquiry. Three hours each week.

PLS 314. Modern Political Thought (3) A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T. H. Green and Nietzsche. Three hours each week.

PLS 315. Contemporary Political Ideologies (3) A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left. Three hours each week.

PLS 316. Women and Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. An introduction to political perspectives on sex role differentiation. Among the topics to be discussed will be political socialization of women in ancient and modern society; women's roles in politics and government; political consequences of women's entry into the work force; and contemporary issues in the women's movement. Emphasis will be placed throughout on comparative political analysis. Three hours each week.

PLS 330. Political Systems of Africa (3) The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on contemporary economic, social and political problems. Three hours each week.

PLS 331. Politics in Developing Nations (3) An examination of the political, economic, and social problems confronting developing nations. Attention will be given to such issues as cultural pluralism, one-party states, military dictatorships, and U.S. relations with the developing world.

PLS 335. European Political Systems (3) Political institutions and processes of selected European countries, including Great Britain, France and Germany. Three hours each week.

PLS 336. Political Systems of the Soviet Union and Eastern Europe (3) A comparative study of the political institutions and processes of the Soviet Union and the eastern European countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China. Three hours each week.

PLS 338. Political Systems of the Middle East (3) The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945.

A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied. Three hours each week.

PLS 339. Political Systems of Asia (3) The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries. Three hours each week.

PLS 340. Blacks in American Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system. Three hours each week.

PLS 405. American Parties and Pressure Groups (3) An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment. Three hours each week.

PLS 406. Contemporary Southern Politics (3) Political Science 211 or consent of instructor. An examination of recent developments throughout the American South and their impact on national politics. Topics covered include southern political culture, the decline of the one-party system, and the changing roles of blacks and organized labor. Emphasis is placed upon independent research projects involving student analysis of census, election return, and public opinon survey data. Three hours each week.

PLS 407. The American Judicial Systems (3) Prerequisite: Political Science 101. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio- metric relationships within the judiciary. Three hours each week.

PLS 415. American Political Thought (3) American political thought from the colonial period to the present. Three hours each week.

PLS 422. Contemporary American Foreign Policy (3) Prerequisite: Political Science 101 or 111. The roles and interrelationships of Congress, the media, public opinion, the President, the Secretaries and Departments of State and Defense, and the intelligence community are examined. Emphasis is placed on the content and the dynamic aspects of the process of policy formulation and implementation. Three hours each week.

PLS 423. National Security Policy (3) Prerequisite: Political Science 101. A study of formulation of security policy, including the roles of the executive and legislative branches and of non-governmental factors; evolution of changing assumptions, strategies, and goals; the nature of U.S. security requirements, U.S.

military commitments abroad, and the cost of strategies based on weapons superiority, arms control, and disarmament.

PLS 425. International Politics (3) Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states. Three hours each week.

PLS 426. International Law (3) Prerequisite: Political Science 101. Nature, development and basic concepts of international law. Examination of the scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations. Three hours each week.

PLS 427. International Organizations (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A survey of the evolution, objectives and methods of various types of regional and universal organizations and their role in contemporary international relations. Special emphasis will be placed on the principal functions and agencies of the United Nations and the European economic community. Three hours each week.

PLS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PLS 495. Departmental Seminar (1-3) Prerequisite: Six hours of Political Science and consent of department chairman. Consideration of special topics in Political Science. May be repeated for additional credit.

PLS 498. Internship in Political Science (3-6) Prerequisite: Political Science 111, 101, 211, and at least one of the following: Political Science 300, 304, or 308. This course is open only to persons taking a concentration in political science who are classified as juniors or seniors. The internship involves an experiential learning situation in selected public or private agencies or with an individual which allows the student to utilize academic training while learning from a practical field experience. A formal research project is a major part of the internship.

PLS 499. Honors Work in Political Science (2-3) Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

PSYCHOLOGY

Dr. Williams, *chairman*. Dr. Applefield, Dr. Bradley, Dr. Brown, Dr. Bruce, Dr. Galizio, Dr. Jackson, Dr. Johnson, Dr. Kishton, Dr. Kowal, Dr. Lakey, Dr. Lamb, Dr. Newton, Dr. Overman, Dr. Phillips, Dr. Puente, Dr. Sanders.

Requirements for a concentration in Psychology for the B.A. degree: Psychology 105, 225, 355, 405, one course from each of the six categories listed below, and nine additional hours in Psychology. Category 1: PSY 220, 221, 324 or 420. Category 2: PSY 410, 412, or 417. Category 3: PSY 418, 456 or 457. Category 4: PSY 346, 347 or 365. Category 5: 336, 337 or 425. Category 6: PSY 350, 352, 422, or 450. No more than one course with a grade of "D" can count toward the requirements for a concentration in Psychology, and there must be a "C" or better average on all courses attempted within the department. Twelve hours of collaterals, approved by the department, are required.

Psychology Course Descriptions

PSY 105. General Psychology (3) Principles of psychology with emphasis on scientific methods used in studying human behavior. Three hours each week.

PSY 110. Self-Management and Self-Motivation (3) Techniques and concepts to provide knowledge, skills, and attitudes to improve performance. Development in coping skills, including determination and modification of motivation, self-management and time-management skills, and efficient methods of learning and organizing materials and solving problems. (Not for Social Science General Degree requirement or Psychology major credit.)

PSY 145. Psychology Applied to Human Life (3) A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment. Three hours each week.

PSY 216. Educational Psychology (3) Prerequisite: Psychology 105 is suggested. Study of the application of psychological theories and principles in educational settings. Three hours each week.

PSY 220. Child Psychology (3) The study of human psychological development through childhood and early adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

PSY 221. Adolescent Psychology (3) The study of human psychological development from late childhood through adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

PSY 225. Introductory Statistics for the Behavioral Sciences (4) Prerequisite: Psychology 105 and three credit hours in mathematics. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes or hypothesis testing. Parametric techniques are emphasized, but nonparametric tests are included. Three lecture and two laboratory hours each week.

PSY 245. Drugs and Behavior (3) Prerequisite: Three semester hours credit in Psychology. An examination of the psychological aspects of drug use and abuse. Emphasis will be on the effects of major psychoactive drugs (including alcohol) on behavior, the psychological determinants of drug use, and treatment of drug abuse. Three hours each week.

PSY 262. Psychology of Consciousness (3) Prerequisite: Psychology 105. A study of the mental processes which occur during various states of human consciousness such as sleep, biofeedback and meditation. Emphasis on the research and theories of brain processes during states of consciousness. Three hours each week.

PSY 265. Human Sexual Behavior (3) Prerequisite: Three hours of Psychology, excluding Psy 110. Examination of the psychological aspects of human sexuality with emphasis on psychosexual development and behavior. Includes discussion of causative factors and treatment of sexual disorders and deviations. Three hours each week.

PSY 275. Psychology of Sex Differences (3) Prerequisite: Psychology 105 or 145. An examination of biological and learned determinants of sex-typed behaviors, current research findings on sex-typed habits and attitudes, and their implications for interpersonal relationships and personal adjustment. Three hours each week.

PSY 311. Psychology of Language (3) Prerequisite: Psychology 105. An introduction to theory and research concerning human language use. Topics will include the nature of human linguistic competence, the perception of speech, the comprehension of speech, memory for verbal information, the production of speech, and the biological basis of human language. Three hours each week.

PSY 322. Psychology of Exceptional Children (3) Prerequisite: Psychology 105 or 220. A study of the physical, cognitive, and personality characteristics of the major types of childhood exceptionality, including high intelligence and creativity, mental retardation, learning disabilities, emotional disorders, language impairments, and sensory and physical handicaps. Issues such as assessment, etiology, family relations, and treatment will be discussed. Three hours each week.

PSY 323. Lifespan Human Development (3) Prerequisite: Three hours in Psychology. An exploration of the variables and factors underlying human growth and development across the lifespan. Physical, cognitive, social, emotional, and sexual development are emphasized. Three hours each week.

PSY 324. Psychology of Adulthood and Aging (3) Prerequisite: Three hours in Psychology, excluding Psy 110. A developmental approach to the portion of the lifespan from young adulthood through sensescence. Emphasis on the interaction of psychological, psychosocial and physiological aspects of development. Three hours each week.

PSY 336. Industrial Psychology (3) Prerequisite: Psychology 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work. Three hours each week.

PSY 337. Vocational Psychology (3) Prerequisite: Psychology 105 or permission of instructor. The study of individual vocational behavior and development. Topics include the history of vocational psychology, theories of vocational development and choice, as well as stimulus, organismic, and response variables correlated with the choice process. Attention is directed toward theories and research concerning the meaning of vocational motivation and vocational adjustment, as well as the prediction of vocational success and satisfaction. Systems for defining vocational problems are included. Three hours each week.

PSY 346. Psychology of Personality (3) Prerequisite: Psychology 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality. Three hours each week.

PSY 347. Psychopathology (3) Prerequisite: Psychology 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders. Three hours each week.

PSY 350. Principles of Behavioral Change (3) Prerequisite: Psychology 105. Application of the principles of behavioral control in interpersonal, educational, and clinical settings. Primary emphasis will be on behavioral modification techniques such as contingency management, desensitization, biofeedback, etc.

PSY 352. Behavioral Medicine (3) Prerequisite: Psychology 105 or 145. Integrates psychological and biomedical knowledge relevant to physical health and illness. Describes the interaction of psychological phenomena with the epidemiology, etiology, pathogenesis, treatment, and rehabilitation of physical disorders. Three hours each week.

PSY 355. Introduction to Experimental Psychology (4) Prerequisite: Psychology 225. Basic principles of psychological research design and evaluation, including techniques of data collection and analysis, and conduct, interpretation, and reporting of various types of psychological research. Experimental research is emphasized. Three lecture and three laboratory hours each week.

PSY 365. Social Psychology (3) Prerequissite: Psychology 105. The study of individual human behavior as a function of the influence of other persons. Emphasis on the psychology of person perception, interpersonal communication and relationships, attitude formation and change, and small group behavior. Three hours each week.

PSY 366. Psychology of Marriage and Family (3) Prerequisite: Three hours of Psychology. The study of personality development within the marriage and family including recent theoretical and empirical findings on courtship, interpersonal attraction, marriage contract, and the various stages of the family life cycle. Communication, familial functioning and dysfunctioning are emphasized. Three hours each week.

PSY 370. (Environmental Studies 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

PSY 405. History and Systems of Psychology (3) Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends. Three hours each week.

PSY 410. Cognitive Psychology (4) Prerequisite: Psychology 355. Introduction to theories and research related to human cognition. Memory, attention, problem solving, and thinking are emphasized. Three lecture and three laboratory hours each week.

PSY 412. Sensation and Perception (4) Prerequisite: Psychology 225 and 355 or consent of instructor. Survey of sensory and perceptual processes, techniques for measuring sensations and perceptions, and theories of perception. Psychological, anatomical, physiological, and environmental factors important in determining how we perceive the world are examined. Demonstrations will introduce students to interesting perceptual phenomena. Three lecture and three laboratory hours each week.

PSY 417. Psychology of Learning (4) Prerequisite: Psychology 355. Study of the basic facts related to the learning process. Effects of reinforcement, extinction, generalization and discrimination, verbal learning and retention, as well as other phenomena, are considered. Three lecture and three laboratory hours each week.

PSY 418. Motivation and Emotion (3) Prerequisite: Psychology 105. Psychological theory and research in the areas of motivation and emotion. Basic as well as more complex motive states will be examined as they arise from physiological needs and from learning and cognitive processes. Data from animal as well as human studies will be considered. Three hours each week.

PSY 420. Developmental Psychology (4) Prerequisite: Psychology 355. Study of the principles and processes underlying the changes occurring during normal development of humans and non-humans. Motor, social, and intellectual development are emphasized. Three lecture and three laboratory hours each week.

PSY 422. Child Psychopathology (3) Prerequisite: Psychology 105 and either Psy 220, 322, or 420. Advanced study of child psychopathology emphasizing behavioral, biological, and psychodynamic approaches. The major disorders of childhood will be compared in terms of etiology, manifestations, and treatments. Low incidence and multiple-handicapping conditions will also be considered. Three hours each week.

PSY 425. Psychological Tests and Measurements (4) Prerequisite: Psychology 105 and 225 or consent of instructor. Introduction to theory and practice of test construction, including a survey of intelligence, achievement and personality tests and their applications. Three lecture and two laboratory hours each week.

PSY 449. Psychology of Death (3) Prerequisite: Psychology 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered. Three hours each week.

PSY 450. Introduction to Counseling (3) Prerequisite: Psychology 346 and 347. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored. Three hours each week.

PSY 451. Supervised Counseling Practice (3) Prerequisite: Psychology 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit. Three hours each week.

PSY 452. Ethical Principles in Psychology (1) Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research.

PSY 455. Advanced Psychological Research (3) Prerequisite: Psychology 355 and consent of instructor. Experience in the design, conduct, and evaluation of psychological research. Advanced design and analysis techniques. Each student designs and conducts a research project and a laboratory exercise for Psychology 355. Three hours each week. Offered on demand.

PSY 456. Physiological Psychology (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior. Three hours each week.

PSY 456-51. Methods in Physiological Psychology (1) Prerequisite or corequisite: Psychology 456. A study of basic mammalian neuroanatomy and methodology of physiological psychology. Gross anatomy of the brain is taught by using sheep brains, slides and tape series. Includes demonstrations of brain research methods such as small animal surgery, brain stimulation and recording, and preparation of brain tissue for microscopic examiination. Two laboratory hours each week.

PSY 457. Animal Behavior (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phylogenetic positions. Three hours each week.

PSY 457-51. Animal Behavior Laboratory (1) Prerequisite or corequisite: Psychology 457. Laboratory exercises in animal behavior, including both field and traditional laboratory techniques. Three laboratory hours each week.

PSY 465. Community Psychology (3) Prerequisite: Psychology 105. Psychology 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health. Three hours each week.

PSY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PSY 495. Topical Seminar (1-3) Prerequisite: Psychology 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

Honors Work In Psychology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 70.

RECREATION

(See Health, Physical Education and Recreation)

SOCIAL SCIENCE

Participating disciplines: Anthropology, Earth Sciences, Political Science, Psychology, Sociology.

Requirements for a concentration in Social Science for the B.A. degree: Fifty-one hours in the Social Sciences, with a minimum of 30 hours in courses above 299. At least one course is required in each of the five participating disciplines, or at least one course required in four disciplines with an additional course in Economics. A minimum of 21 hours is required in the primary concentration area, with at least 15 of these hours in courses above 299. A minimum of 12 hours is required in each of two secondary concentration areas. At least six additional hours in Social Science are required.

Additional required courses include: a Research Methods course, the discipline of this course to be decided by the advisor and the student (3 hours); an appropriate Statistics course (3 hours); a two-course History sequence, or an appropriate pairing to be decided by the advisor and the student (6 hours). A Computer Science course is recommended, but not required. At least a 2.0 grade point average in the Social Science concentration must be attained.

A faculty member within the area of primary concentration shall serve as the student's advisor. Note: The primary concentration area may not serve as a discipline in a double major.

SOCIOLOGY AND ANTHROPOLOGY

Dr. James Sabella, *chairman.*

The Department of Sociology and Anthropology is comprised of Anthropology, Criminal Justice, Social Work and Sociology. The baccalaureate degree is offered in both Sociology and Anthropology.

Anthropology

Dr. Lerch, Dr. Loftfield, Dr. McCall, Dr. Sabella.

Requirements for a concentration in Anthropology for the B.A. degree: Anthropology 206, 207, 207-51, 210, 345, 450 and 21 additional hours comprised of two courses from each of the first three subfields listed below and one from the linguistics group. Physical: 320, 322, 324, 430. Archaeology: 307, 311, 312, 411. Cultural: 301, 302, 303, 304, 305, 306, 309, 317, 350. Linguistics: 208, Psychology 311, English 320, 322. Although no collateral courses are required, students contemplating a professional career in anthropology are urged to study a foreign language and acquire basic skills in computer science and statistics. Anthropology advisors may recommend additional courses in the sciences, humanities, or mathematics commensurate with individual career plans. A "C" grade point average over-all is required in departmental courses, and at least a "C" grade is mandatory in specific courses required in the department.

Anthropology Course Descriptions

(Department of Sociology and Anthropology)

ANT 105. Introduction to Anthropology (3) Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man. Three hours each week.

ANT 205. (Sociology 205) Human Societies (3) The comparative study of human society and culture, with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamics of social process and cultural change are also introduced. Three hours each week.

ANT 206. Cultural Anthropology (3) A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures. Three hours each week.

ANT 207. Archaeology (3) The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

ANT 207-51. Archaeological Laboratory (1) Corequisite or prerequisite: Archaeology 207. Course is designed to familiarize students with techniques of archaeological recovery, preparation, preservation, and analysis of recovered

archaeological materials. Laboratory work will parallel lecture, providing practical experience in techniques covered as part of lecture course. It is not necessary to take the lab in order to take lecture. Three hours each week.

ANT 208. Language and Culture (3) Human language, its characteristics and its relationship to other communication systems will be examined. The use of language to illuminate historical relationships and current sociocultural processes will be discussed, as well as ways in which one can investigate culture through cognitive structures elicited from speech. Three hours each week.

ANT 210. Physical Anthropology (3) Examination and correlation of fossil remains and artifacts preserved in the geologic record as related to the anatomy and behavior of living human and non-human primate groups. Three lecture hours each week.

ANT 230. (Sociology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are reviewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

ANT 250. Anthropology Through Film (3) A series of anthropological (ethnographic) films exploring life and values, especially in nonwestern societies, provide the primary course material. The films are used as a surrogate field experience to introduce a number of major anthropological topics that receive further emphasis in assigned readings and class discussion. Ethnocentrism, adaptation, warfare and acculturation among other themes are explored in this course. Three hours each week.

ANT 301. Shamanism, Witchcraft, and Cults (3) Prerequisite: Anthropology 105 or consent of instructor. A study of the religious institutions of traditional band, tribal, and peasant societies. Topics cover psychological stress, social control, and ritual healing. The cult within modern western society will be compared with those in traditional preindustrial society. Three hours each week.

ANT 302. Traditional Societies in the Modern World (3) Prerequisite: Anthropology 105 or consent of instructor. An assessment of the impact of Western industrial societies on primitive and peasant peoples of the world. Themes of acculturation, underdevelopment, modernization, economic dependency and rural to urban migration will be treated from a cross-cultural perspective. Three hours each week.

ANT 303. Women, Work and Culture (3) Prerequisite: Anthropology 105 or Sociology 105 or consent of instructor. A study of women's work in traditional societies (primarily Third World). The allocation of work to women is seen as affected by such factors as: socialization and gender defintion, economic exchange patterns, division of labor, religious beliefs, political structure, and the impact of modernization and development policies on work and family roles of Third World women. Three hours each week.

ANT 304. Indians of South America (3) Prerequisite: Consent of instructor. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to

lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent. Three hours each week.

ANT 305. Indians of North America (3) Prerequisite: Consent of instructor. Surveys of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence. Three hours each week.

ANT 306. Principles of Kinship and Social Organization (3) Prerequisite: Anthropology 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns. Three hours each week.

ANT 307. New World Archaeology (3) Prerequisite: Anthropology 105 or 207 or consent of instructor. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered. Three hours each week.

ANT 308. Marine Archaeology: Methods and Theory (3) Prerequisite: Anthropology 207, Diver's Certificate, 310 corequisite. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized. Three hours each week.

ANT 309. Environmental Anthropology (3) Prerequisite: Anthropology 105 or 206 or 207 or consent of instructor. A study of cultural adaptations as responses of human populations to varied environments; this course will focus upon cultural vs. biological adaptation from the archaeological past to the ethnographic present.

ANT 310. Marine Archaeology: Field Practicum (3-6) Prerequisite: Anthropology 207, Diver's Certificate, 308 corequisite. Practical field methods will be taught utilizing actual underwater prehistoric or historic sites. Survey techniques, excavation, record-keeping and preservation will be stressed and adapted to a submarine environment.

ANT 311. Field Methods in Archaeology (3-6) Prerequisite: Anthropology 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

ANT 312. Historical Archaeology (3) Prerequisite: Anthropology 105 or consent of instructor. Substantive investigation of the special excavation and analysis procedures, subject matter, and goals of archaeology as applied to the historic past of North America. Special emphasis will be placed upon historic archaeological sites in the local (Southeastern North Carolina) region. Lecture, laboratory and field work involved. Three hours each week.

ANT 317. The Human Condition in Latin America (3) Prerequisite: Anthropology 105 or consent of instructor. This course applies the anthropological perspective to the study of the complex national cultures of Latin America. Topics covered focus on the problem of relating peasant communities, small towns, urban slums, middle class neighborhoods, and clubs and social networks to regional and national institutions. Three hours each week.

ANT 320. Human Origins (3) Prerequisite: Anthropology/Earth Sciences 210 or consent of instructor. Classification and history of human evolution deduced from the fossil record and molecular data. Discussion of Tertiary hominoids and emergence of humans with emphasis on Australopithecines and later Pleistocene hominids. Three hours each week.

ANT 322. Primate Biology and Behavior (3) Prerequisite: Anthropology 210 or consent of instructor. Ecology, social behavior, and functional morphology and classification of living primates (prosimians, monkeys, and apes); their evolutionary history and development.

ANT 324. Human Biological Variation (3) Prerequisite: Anthropology 210 or consent of instructor. Nature and extent of heritable differences among human populations in evolutionary perspective. Consideration of effects of environmental factors on genic expression. Three hours each week.

ANT 345. Method and Practice in Cultural Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of ethnographic field methods through selected readings demonstrating field techniques of major figures in cultural anthropology, both past and present. Practice involves exercises in participant-observation, indepth interviewing, survey research, photographic analysis, and tape recordings of cultural events. Three hours each week.

ANT 350. Maritime Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of fishermen, navigators, boatbuilders, and seamen. This course traces the origins and development of human maritime adaptations in selected regions of the world. Themes include primitive and traditional fisheries, technological innovation, fisheries management and law of the sea. Three hours each week.

ANT 387. (Art 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition, and education. Three hours each week.

ANT 387-51. (Art 387-51) Museum Studies Practicum (1) Prerequisite: Permission of instructor. Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ANT 411. Advanced Field Training in Archaeology (3) Prerequisite: Anthropology 105, 207, 311, and consent of instructor. Supervisory training for field archaeologists. Students direct specific aspects of archaeological excavation, including

research design, data recovery, daily site management, and field analysis. For the advanced archaeology student only. Three hours each week.

ANT 430. (Biology 430) Evolutionary Biology (3) Prerequisite: Biology 335 (Genetics). Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three hours each week.

ANT 450. History of Anthropological Theory (3) Prerequisite: Six hours of anthropology above the introductory level or consent of instructor. This course traces the development of anthropological theory through the research and writings of key figures in the field. Attention is directed toward social and intellectual contexts out of which anthropological theories emerge. Three hours each week.

ANT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

ANT 495. Topical Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

ANT 499. Honors Work in Anthropology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 70.

Sociology

Dr. Blanks, Dr. Dixon, Dr. Faulkner, Dr. LaGrange, Dr. Levy, Dr. Maxwell, Dr. McNamee, Dr. Miller, Dr. Polgar, Dr. Scalf, Dr. Shevach, Dr. Tjaden, Dr. Willis.

Requirements for a concentration in Sociology for the B.A. degree: Sociology 105, 306, 360, 406, 460, 490, and 18 additional hours, 12 of which must be at the 300-400 level. Statistics 205 and Computer Science 105 or Sociology 306-51 are required. Collaterals will be decided in consultation with each advisee. Within Sociology some areas of emphasis are deviance and social control, demography and environmental studies, urban and community studies, family and leisure studies, organizations and bureaucracy, and medical and gerontolgy. A "C" grade point average over-all is required on departmental courses, and at least a "C" grade is mandatory on specific courses required in the department.

Criminal Justice and Social Work are areas of specialization in the department. The department offers some alternatives to the above-listed requirements for students specializing in Criminal Justice or Social Work. The alternative requirements are available in the department.

Criminal Justice Course Descriptions

(Department of Sociology and Anthropology)

CRJ 201. Introduction to Criminal Justice (3) A study of the various components of North Carolina's criminal justice system will include an analysis of the structure and function of law enforcement agencies, the court system, corrections and probation systems. Three hours each week.

CRJ 240. Issues in Criminal Justice (3) This course will be a study of crime, lawlessness, civil unrest and violence as issues relating to the administration of criminal justice, focusing on the current role of the system, the problems arising from attempting to fill the role, and some role modification that will improve the general operation of the criminal justice system. Three hours each week.

CRJ 306. (Social Work 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

CRJ 340. Police in Society (3) Prerequisite: Criminal Justice 201. Evolution of law enforcement systems and practices through the ages. Emphasis will be placed on the effects of societal changes and on survey of comparative police systems. Three hours each week.

CRJ 350. Criminal Courts and the American Justice System (3) Prerequisite: Criminal Justice 201. This course examines the social dynamics of American Criminal Courts. Primary emphasis is placed on the pivotal role of the court as an agent of social control. Relationships and interactions between the courthouse workgroup (police, prosecutor, defense attorney, judge) are examined. The courtroom roles assumed by members of society (witnesses, victims, defendants, jurors) are discussed. Visits to State and Federal Courts are included in course requirements. Three hours each week.

CRJ 395. Corrections (3) Prerequisite: Criminal Justice 201. An historical review of societal patterns of punishment, and indepth analysis of the diversity of alternatives to incarceration, and an examination of practical data related to counselor-counselee relationships in correctional settings are course objectives. Three hours each week.

CRJ 405. Criminal Justice Administration (3) Prerequisite: Criminal Justice 201, 240, and consent of instructor. A concentration on management techniques for each administrative segment of criminal justice: the police, the courts, prosecution/defense, probation, parole and corrections. It will offer alternative models, based on a system approach to function and role, that relate each criminal justice sub-system administratively to the others. Three hours each week.

CRJ 410. World Criminal Justice Systems (3) Prerequisite: CRJ 201 plus six additional hours in Criminal Justice. Comparatice study of criminal justice systems throughout the world. Attention to historical, structural, political, legal and philosophical similarities and differences. Analysis includes criminal justice systems of England, France, Sweden, Japan and the Soviet Union. A topical paper is required. Class limited to 20 students. Three hours each week.

CRJ 450. Criminal Justice Theory (3) Prerequisite: Criminal Justice 201 plus six additional hours in Criminal Justice. An analysis of the development of theories of justice and crime control. The theories and principles upon which the American system of justice is based are covered. Three hours each week.

CRJ 490. Criminal Justice Practicum (3-6) Prerequisite: Junior or senior standing and consent of instructor. A course designed to acquaint student with the crim-

inal justice agencies of all governmental levels. Observation of agency programs and activities in applied criminal justice are integrated with formalized knowledge gained in the classroom to provide the student with beginning knowledge. skills and attitudes consistent with his career plans.

CRJ 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

CRJ 495. Topical Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in the regular courses.

For 292 and 492, see explanation on p. 70

Social Work Course Descriptions

(Department of Sociology and Anthropology)

SWK 235. Introduction to Social Work (3) History, methods, and practice in professional social work in the United States. Three hours each week.

SWK 245. Human Behavior in the Social Environment (3) Prerequisite: Social Work 235. A survey of the human behavior from a social systems standpoint. Emphasis on concepts and theories relevant to social work intervention with individuals, families, groups, organizations, and communiteis. A theoretical foundation for specialized areas of casework, group work, and community organization is provided. Three hours each week.

SWK 301. Social Casework Methods (3) Prerequisite: Social Work 235. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and utilization of systematic processes of problem solving int he delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

SWK 302. Social Group Work Methods (3) Prerequisite: Social Work 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required. Three hours each week.

SWK 306. (Criminal Justice 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis off data and its implications, research methods with emphasis on practical application. Three hours each week.

SWK 310. Programs and Policies for Older Americans (3) Prerequisite: Social Work 235. Health, social,and income needs of an aging population will be related

to current laws, programs, administrative networks, and politics. Current issues in the development of programs such as age-integration, community based services, advocacy and protection will be covered. Three hours each week.

SWK 318. Social Work and Health Care Delivery (3) Prerequisite: Social Work 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

SWK 336. Suicidology and Crisis Intervention (3) Prerequisite: Social Work 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventative techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises. Three hours each week.

SWK 396. Community Organization and Social Practice (3) Prerequisite: Social Work 235. The course analyzes a variety of forms of community organization practice, focusing on definition of goals, values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in community life. Community needs and resources available to meet these needs are studied. Three hours each week.

SWK 435. Social Welfare Policies (3) Prerequisite: Social Work 235, 301, and 302. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services, policies and programs are being developed by our society and other countries. Three hours each week.

SWK 490. Social Work Practicum (3-6) Prerequisite: Consent of instructor. A field experience in selected social agencies designed to permit student application and inte-gration of cognitive and affectual learning with a formalized service system. Learning experiences and content are designed to gain and demonstrate beginning knowledge, attitudes and skills which are consistent with the concepts of social practice. The student will participate in a two hour weekly seminar.

SWK 490-51. Social Work Laboratory (1) Prerequisite: Social Work 490 corequisite. Integration of practicum and theory through the discussion of selected topics related to social work practices. To be taken concurrently with Social Work 490. Two hours each week.

SWK 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SWK 495. Topical Seminar (1-3) Prerequisite: Sociology 105, Social Work 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

For 292 and 492, see explanation on p. 70.

Sociology Course Descriptions

(Department of Sociology and Anthropology)

SOC 105. Introduction to Sociology (3) Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed. Three hours each week.

SOC 110. Sociology in Contemporary Life (3) An introductory level course designed to enable students to think about and interpret the social world and events around them. Emphasis will be placed on discovering your social self, understanding social interaction, and interpreting the relationship of the individual with modern industrial society. Three hours each week.

SOC 200. Sociology of Sport (3) A sociological examination of the rise of sport in contemporary society. Topics such as the social organization of sports, women and sports, sports and violence, inter-scholastic sports and achievement behavior, discrimination and sports, and the future of sport are covered. Three hours each week.

SOC 205. (Anthropology 205) Human Societies (3) The comparative study of human society and culture with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamic of social process and cultural change are also introduced. Three hours each week.

SOC 215. Modern Social Problems (3) Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization. Three hours each week.

SOC 220. Sociology of Birth and Death (3) The examination of the sociological dimensions of "human entry and exit." The social organizational and cultural dimensions of birth and death will be considered in terms of rites of passage, bureaucratization, social movements, cultural differences, and historical and contemporary contexts. Three hours each week.

SOC 225. Collective Behavior and Social Movements (3) Analysis of social behavior that breaks from existing patterns and expectations, such as riots, crowds, revolution, and social movements. Three hours each week.

SOC 230. (Anthropology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are viewed in terms of their origin and purpose, ideology, sub-

sistence, social patterns, relations with the outside world, and survival. Three hours each week.

SOC 237. Sociology of Aging (3) This course covers sociological and social psychological aspects of growing old. Emphasizing a life-span perspective, the students will be introduced to the major theories and methods sociologists use to explain the aging process. Salient topics include age stratification, adjustment to major life events, housing patterns, and institutional care. Three hours each week.

SOC 305. Population (3) Prerequisite: Sociology 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them. Three hours each week.

SOC 306. Methods of Social Research (3) Prerequisite: Sociology 105, Statistics 205. Introduction to the logic and methods of sociological research. Topics include the logic of social scientific inquiry; the relationship between theory and research; problem formulation; research design; conceptualization and measurement; operationalization; sampling; modes of observation; index and scale construction; introduction to analysis and interpretation of quantitative data; and ethics and politics of social research. Three hours each week.

SOC 306-51. Methods of Social Research Laboratory (1) Prerequisite: Sociology 105 and Statistics 205. Basic instruction in SPSS computer programming techniques and applications to social scientific data management and analysis. Two hours each week.

SOC 311. (Political Science 311) Techniques of Public Opinion Polling (3) Basic skills in all phases of Public Opinion Polling: issue focus; questionnaire construction; sample selection; interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills. Three hours each week.

SOC 315. Urban Sociology (3) Prequisite: Sociology 105. Analysis of the history and development, social organization, and problems of the city. Three hours each week.

SOC 316. Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

SOC 325. American Minority Relations (3) Prerequisite: Sociology 105. Analysis of the ascriptive bases of inequality in American society: race, ethnicity, religion and sex. Topics include sociocultural causes and consequences of prejudice and discrimination; institutionalized discrimination; and Europe immigration, ethnicity and assimilation. Three hours each week.

SOC 333. Sociology of Mental Illness (3) Prerequisite: Sociology 105. A sociological examination of the development and distribution of mental health and illness,

particularly in the United States. Drawing from the works of relevant writers in the field, such as Scheff and Goffman, the course emphasizes the societal reaction approach to mental illness. Topics to be included are mental illness as deviance, the sociogenesis of mental disorder, and social stratification and mental illness. Three hours each week.

SOC 335. The Sociology of Deviant Behavior (3) Prerequisite: Sociology 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of non-sociological research and theories. Three hours each week.

SOC 337. Medical Sociology (3) Prerequisite: Sociology 105. A sociocultural analysis of the general area of health and illness. Emphasis is given to understanding the distribution of health and illness in the United States and its impact on the patient status. The course includes a discussion of the organization and use of health care services from a sociological perspective. Three hours each week.

SOC 340. Organizations in Modern Society (3) Prerequisite: Sociology 105. An introduction to the dynamics of social life in large-scale organizations. Topics include organizational social psychology, organizational structure and process, and organization-community relations. Three hours each week.

SOC 345. Sociology of the Family (3) Prerequisite: Sociology 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family: socialization, mate selection, procreation. Three hours each week.

SOC 346. Sociology of Religion (3) Prerequisite: Sociology 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and cultural and religious differentiation and institutionalization. Three hours each week.

SOC 347. Sociology of Education (3) Prerequisite: Sociology 105. An examination of the socio-cultural factors operating at various levels of the educational process, from classroom to school system to community, in light of the changing roles of the child and education in a complex industrial society. Three hours each week.

SOC 348. Sociology of Leisure and the Arts (3) Prerequisite: Sociology 105. This course surveys existing theory and research with respect to the concept of leisure. Specific attention is devoted to sociological analyses of trends, differentials, and time expenditures which population categories exhibit in recreational, sporting, and arts activities. Three hours each week.

SOC 350. Sex Roles in Society (3) Prerequisite: Sociology 105. The diifferentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change. Three hours each week.

SOC 355. Criminology (3) Prerequisite: Sociology 105. The nature, variation and causes of crime are studied as aspects of the American culture. Three hours each week.

SOC 360. Foundations of Social Thought (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research. Three hours each week.

SOC 365. Social Psychology (3) Prerequisite: Sociology 105. A sociological analysis of human social interaction. Topics include symbolic interaction, socialization, interpersonal relations. Focus is on social and cultural influences on individual and group behavior. Three hours each week.

SOC 366. Social Change (3) Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change. Three hours each week.

SOC 375. Juvenile Delinquency (3) Prerequisite: Sociology 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society. Three hours each week.

SOC 385. The Community (3) Prerequisite: Sociology 105. Structure, process and change in modern communities. Topics include analysis of the concept of community; the community as a social system; major community functions; relationships between the community and larger society; community stratification, power structure and organization. Three hours each week.

SOC 386. Sociology of Work and Occupations (3) Prerequisite: Sociology 105 and three additional hours in Sociology or Economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure. Three hours each week.

SOC 390. Social Structures (3) Prerequisite: Sociology 105. The course examines the concept of social structure as differentiated social positions and units and their interrelations, including bases of differentiation and integration. Examines patterns of a variety of social structures—the overall structure and patterned development of society, the structure of culture, the structure of deviance, the structure of interaction—considering consequences and interrelations. Three hours each week.

SOC 406. Sociological Methods of Social Research (3) Prerequisite: Sociology 306. The student will be introduced to the process of constructing theories relative to social relations, and to their practical applications in the conduct of actual survey research. There will also be a segment of time used to introduce those non-parametric statistics that are most often used with either nominal or ordinal data. Three hours each week.

SOC 415. Power and Privilege (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination of social stratification as the system of distribution of privilege, power and prestige in modern and traditional societies. Discussion of major theories and theorists of stratification; the structure and process of systems of social inequality; the causes, correlates and consequences of socially structured inequality. Three hours each week.

SOC 449. Sociology of Law (3) Prerequisite: Sociology 105 and junior/senior standing. An analysis of the role of law in society. Special emphasis will be given to the relationship between law and social organization and the relation of sociocultural changes to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivistic-individualistic process and as a reflection of sociocultural values. Three hours each week.

SOC 460. Contemporary Sociological Thought (3) Prerequisite: Sociology 360. Coverage of the major contemporary theoretical approaches in sociology is provided. The development of structural-functionalism, positivism, Marxian thought, interactionism, ethnomethodology, and structuralism are analyzed in terms of the structure and purposes of theory. Three hours each week.

SOC 490. Senior Project (3-6) Prerequisite: Sociology 105, 306, 406 and senior status. A personal study of a segment of the community will be undertaken by each major. There will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting.

SOC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SOC 495. Topical Seminar (1-3) Prerequisite: Sociology 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

SOC 499. Honors Work in Sociology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 70.

SPANISH

(See Modern Languages)

SPEECH COMMUNICATION

(See Creative Arts)

CAMERON SCHOOL OF BUSINESS ADMINISTRATION

Norman R. Kaylor, *Dean*

The Cameron School of Business Administration of The University of North Carolina at Wilmington has planned its courses and curricula to be of use to the graduate in a position of responsibility as an owner of an independent business enterprise or as an employee at the decision making level in private business or in government and other non-profit organizations.

The primary function of the Cameron School of Business Administration is to teach students the basic body of knowledge they will need to enter a career in business or government and to promote the development of proficiency in practical application. The academic programs provide graduates with career opportunities in manufacturing and service organizations, marketing and sales, government, accounting firms, banks and other financial institutions. The graduate is also prepared to enter law school and graduate programs in public administration as well as for graduate study in accountancy, business administration, and economics. As complementary functions, through individual faculty efforts and the Center for Business and Economics Services, the Cameron School of Business Administration undertakes research in appropriate areas and provides related services to business and governmental units.

DEGREE PROGRAMS AND REQUIREMENTS

The B.S. degree is offered in five areas of concentration: Accountancy, Business Management, Finance, Marketing, and Economics. The B.A. degree with a concentration in Economics is offered for those students who want to study Economics in the liberal arts tradition.

Requirements for admission to the Cameron School of Business Administration are listed on page 66. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better. The following courses must have been completed at time of application: English 101-102, Mathematics 151 or 161, Accounting 201, and Economics 221. During the semester of application each applicant must be enrolled in or have completed: Business 217, Economics 222, and Accounting 203 or 204. Students seeking a concentration in Accountancy should enroll in Accounting 204; all others should enroll in Accounting 203. Students enrolling in the B.A. program in Economics are not required to complete Accounting 201, 203 or 204 and may substitute Statistics 205 or 215 for Business 217.

Students may qualify for the B.S. degree by successfully completing the requirements as stated under Academic Regulations and Procedures, the courses designated for the degree program, and attaining a minimum grade point average of 2.0 on all courses attempted in the Cameron School of Business Administration. Students seeking the B.S. degree with a concentration in Accountancy must also earn a minimum grade point average of 2.0 on all accounting courses attempted in the Cameron School of Business Administration. The B.A. degree requires a minimum grade point average of 2.0 on all economics courses attempted and in the combined concentration and collateral courses attempted.

Electives are to be chosen by the student after consulting with the faculty advisor, with no more than 9 semester hours of free electives selected from courses in the Cameron School of Business Administration.

ACCOUNTANCY

Mr. Appleton, *chairman*. Mr. Earney, Dr. Kaylor, Mr. Roscher, Mrs. Sawyer, Mr. Zeko.

The B.S. degree with a concentration in Accountancy provides the student with the analytical foundation of the discipline of Accountancy. Included are the special tools

and techniques of planning and control using financial and managerial accounting, income taxes, cost analysis, and systems.

Students establish qualifications for careers as professional certified public accountants, and in industrial, governmental, and other positions requiring managerial and analytical skills. The accounting concentration provides an excellent background for graduate and other professional education.

The elements of planning, administration, and control covered in the accounting courses are essential to all areas of business. Many of the courses offered benefit students concentrating in other fields by furnishing a comprehensive background of business procedures and financial relationships. Likewise, students concentrating in Accountancy find it advantageous to elect as many courses as possible in other areas of business, especially the quantitative fields.

A graduate of the Cameron School of Business Administration who has completed a concentration in Accountancy is permitted by the State Board of Accountancy of North Carolina to write the CPA examination. The student is also qualified by the Institute of Management Accounting to write the CMA examination.

Requirements for a concentration in Accountancy for the B.S. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 311, 313, 314, 355, 357, 455, Finance 335, and Marketing 340.

(b) Concentration Courses: Accounting 204-303-304, 305, 404, 407, and two courses from the following: Accounting 307, 309, 405, and 406. Students planning to write the CPA examination are advised to elect Business 412 and additional accounting electives including Accounting 309, 402, and 405.

Accountancy Course Descriptions

(Department of Accountancy)

ACG 201. Financial Accounting (4) Prerequisite: Mathematics 111. An introduction to the basic framework of accounting for both students concentrating in accountancy and other disciplines. Includes preparation of financial records, working papers, and financial statements, and analysis of the major financial statements with emphasis on the underlying accounting concepts and constraints.

ACG 203. Managerial Accounting (3) Prerequisite: Accounting 201. An introduction to the concepts and techniques used by management to analyze and interpret accounting data in the organization. Not open to students seeking a concentration in accountancy.

ACG 204-303-304. Intermediate Accounting I, II, and III (3-3-3) Prerequisite: Accounting 201. Analysis of traditional financial accounting topics and theory. Examines recent developments in accounting measurement and promulgations of the leading professional accounting organizations. ACG 204 emphasizes development of accounting standards and theory, financial statements, current assets and current liabilities. ACG 303 emphasizes plant assets, long-term investments, long-term liabilities, stockholders equity, revenue recognition and income tax allocation. ACG 304 emphasizes pensions and leases, changes in financial position, accounting for changing price levels, financial statement analysis, international operations, corporate liquidations and reorganizations, and segment and interim reporting.

ACG 305. Cost Accounting (3) Prerequisite: Accounting 201. Costs for planning and control, including the role of the accountant in the organization; cost behavior

and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

ACG 307. Administrative Accounting and Control (3) Prerequisite: Accounting 203 or 305. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

ACG 309. Accounting for Business Combinations (3) Prerequisite: Accounting 303. A study of accounting problems in parent-subsidiary interrelationships, mergers and consolidations, partnerships, and non-profit accounting. Emphasis on consolidated financial statements.

ACG 402. Specialized Accounting Problems (3) Prerequisite: Accounting 304, 305, and 309. Advanced study of accounting practice and theory with emphasis on preparation for the CPA examination. Includes study of official pronouncements of the American Institute of Certified Public Accountants and the Financial Accounting Standards Board.

ACG 404. Federal Income Taxes I (3) Prerequisite: Accounting 201. Study of federal income taxation of individuals. Includes business expenses and revenues, depreciation, and property transactions and the history and development of taxation.

ACG 405. Federal Income Taxes II (3) Prerequisite: Accounting 404. The study of corporate, partnership, estate and trust taxation. Emphasis is on corporation and partnership organization, operations, distributions, liquidation and reorganization.

ACG 406. Non-Profit Organization Accounting (3) Prerequisite: Accounting 303. Accounting for not-for-profit organizations including governments, collegess and universities, hospitals, charities, and other not-for-profit organizations. Emphasis is on objectives and preparation of financial statements, the use of managerial reports, and bbudgetary data.

ACG 407. Auditing (3) Prerequisite: Accounting 304. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

ACG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ACG 498. Accounting Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of professional accounting skills required in the academic environment to the role of the practicing professional accountant. The participant will receive practical training and experience under the guidance of the accounting staff of a local business or government organization and a faculty supervisor. Open only to students concentrating in accountancy. Available internships will be filled on a competitive basis.

ACG 499. Honors Work in Accounting (2-3) Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS AND FINANCE

Dr. Hill, *chairman*. Dr. Carter, Dr. Comeskey, Dr. Copley, Dr. Farrell, Dr. W. Hall, Dr. Lawson, Dr. Morgan, Dr. Wadman.

The Economics and Finance programs prepare students for careers which emphasize an understanding of the operation of the economy and the proper choice of policies by both government and business enterprises. The Economics concentrations represent a more general area of study, preparing the student to enter government service, industry, or to pursue a graduate program in economics, business, public administration or other social science disciplines.

The B.S. degree with a concentration in Economics is designed to provide orientation of the individual and the firm in economic society. The student is required to supplement the study of economics with a variety of business and accounting courses.

The B.S. degree with a concentration in Finance consists of three separate but related areas—business finance, investments, and financial institutions. The Finance curriculum prepares students for graduate study or for careers in corporate financial management, the investments and securities business, and the management of banking and nonbank financial institutions. The generalized applicability of finance and the basic tools of financial analysis are emphasized in the courses.

The B. A. degree with a concentration in Economics is designed for the student who wants to study Economics in the liberal arts tradition. The study of a wide variety of economics courses is supplemented by a study of history and the social sciences. Both degree programs develop an understanding of contemporary economic problems and institutions and provide a study of economic issues both in an historical setting and under conditions of change.

Requirements for a concentration in Economics for the B.S. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 313, 314, 355, Economics 320, 323, 495, Finance 335, and Marketing 340.

(b) Students planning a study of general economics must complete, in addition to the courses named in (a) above, Economics 321, 322, 324, 422, and two courses selected from the following, one of which must be numbered above 399: Economics 325, 326, 328, 329, 421, 426, 427, and 428.

(c) Students planning a study of Economics with an emphasis on Finance must complete, in addition to the courses named in (a) above, Economics 321, 322, 324, Finance 330, 436, and either Finance 430 or 437.

Requirements for a concentration in Finance for the B.S. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 311, 313, 314, 355, 357, 455, Finance 335, and Marketing 340.

(b) In addition to the courses named in (a) above, students must complete Economics 320, 324, Finance 330, 436, 430 or 437, and one course selected from the following: Accounting 404, Economics 422, Finance 311, 332, 430, and 437.

Requirements for a concentration in Economics for the B.A. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed:

Economics 321, 322, 324, 328, 326 or 421, 495, and six additional hours in Economics courses numbered above 299.

(b) In addition to the courses named in (a) above, the student must complete 21 semester hours from at least two of the following: Anthropology, Georgraphy, History, Political Science, Psychology, Sociology. A minimum of six hours must be taken in at least two areas, and at least nine hours must be courses numbered above 299.

Economics Course Descriptions

(Department of Economics and Finance)

ECN 125. Survey of Economics (3) An introduction to economics principles for non-business and non-economics majors. Current analysis rather than theoretical analysis is utilized to present and show the relevance of economics principles.

ECN 221. Principles of Economics—Micro (3) Prerequisite: Mathematics 111. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

ECN 222. Principles of Economics—Macro (3) Prerequisite: Economics 221. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income and prices at an introductory level.

ECN 320. Managerial Economics (3) Prerequisite: Business 314. The theory and application of economics principles and methodology to the decision making process under conditions of uncertainty. Includes the following topics: demand theory and analysis; cost and production conditions facing the firm; forecasting; resource allocation and management of inputs; pricing, profit strategies, and market structure; and finance and investment decision making for the firm.

ECN 321. Intermediate Price Theory (3) Prerequisite: Mathematics 151 and Economics 222. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

ECN 322. National Income Analysis (3) Prerequisite: Economics 321. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and role of monetary and fiscal policy in the determination of such.

ECN 323. Business, Government and Society (3) Prerequisite: Economics 222. A broad study of the role of business enterprises in society and their relationships with government. Examines influence on decision making of changing social values, changing political, legal, and regulatory environments.

ECN 324. Money and Capital Markets (3) Prerequisite: Economics 222. An introduction to the financial and economic environment within which a firm must operate. Analysis of the sources and the cost and availability of funds in a domestic and international setting; analysis of international monetary flows; financial decision making in an integrated world economy.

ECN 325. (Environmental Studies 325) Environmental Economics (3) Prerequisite: Economics 125 or 221. Application of economics concepts to environmental

problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

ECN 326. Comparative Economic Systems (3) Prerequisite: Economics 125 or 222. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

ECN 327. Money and Banking (3) Prerequisite: Economics 222. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve System. An overview of banks and other financial institutions.

ECN 328. Public Finance (3) Prerequisite: Economics 222. Study of state, local, and federal government revenue and expenditures; theory of taxation, tax shifting and incidence; theory of public goods, fiscal neutrality and government regulation; methods of achieving efficiency in government beneift-cost analysis, program budgeting (PPB), and pricing of government services.

ECN 329. Industrial Organization (3) Prerequisite: Economics 222. A theoretical and empirical study of how the structure of industry affects the conduct and performance of the firm; covers government regulation, control and influence in business activity with respect to structure, conduct and performance.

ECN 421. History of Economic Thought (3) Prerequisite: Economics 322. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

ECN 422. Econometrics (3) Prerequisite: Business 217 or Statistics 362 and Economics 321. An introduction to the formalization of economic hypotheses into testable relationships and the application of appropriate statistical techniques. Theoretical aspects are covered, but primary emphasis is on computer application utilizing regression analysis.

ECN 426. International Trade and Finance (3) Prerequisite: Economics 222. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

ECN 427. Labor Economics (3) Prerequisite: Economics 320 or 321. An analysis of the demand for and the supply of labor at the individual and the aggregate level; labor unions and collective bargaining.

ECN 428. Regional Growth and Development (3) Prerequisite: Economics 320 or 321. Theories of subnational or regional economic growth. Measures of regional economic policies to alleviate problems resulting from disparate rates of regional economic growth.

ECN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ECN 495. Senior Seminar in Economics (3) Prerequisite: Economics 322 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions and economic priorities require the use of new approaches to deal with current issues.

ECN 498. Internship in Economics (1-3) Prerequisite: Senior status and consent of department chairman. Involves the application of economics concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a busines or not-for-profit organization and a faculty supervisor.

ECN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Finance Course Descriptions

(Department of Economics and Finance)

FIN 235. Personal Finance (3) Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings and investments. Recommended elective for non-business majors.

FIN 330. Principles of Investments (3) Prerequisite: Accounting 201 or Economics 222. An introduction to alternative investments, with major emphasis on financial instruments. Practical descriptive material and relevant theoretical applications. Topics include stocks, bonds, options and REITs

FIN 331. Real Estate (3) Prerequisite: Accounting 201 and Economics 222. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

FIN 332. Risk Management and Insurance (3) Prerequisite: Accounting 201 and Economics 222. An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

FIN 335. Business Finance (3) Prerequisite: Accounting 203 or 204 or 305 and Business 217 or Statistics 322 and Economics 222. An introduction to the finance function of business enterprise and to the analytical techniques used in making investment and financing decisions.

FIN 430. Securities Valuation and Portfolio Analysis (3) Prerequisite: Finance 330 and 335. An analytical approach to the valuation of stocks, bonds and options and the placement of those securities in Markowitz-efficient portfolios. Technical and fundamental analysis, market efficiency and valuation methods are examined. Both application and theory are emphasized.

FIN 436. Financial Management (3) Prerequisite: Finance 335. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized, including both working capital and fixed capital requirements.

FIN 437. Management of Financial Institutions (3) Prerequisite: Economics 324 and Finance 335. A case study course in the management of financial institutions with emphasis on commercial banks and savings and loan associations. Major emphasis on defining the functional areas within the institutions and the associated decision making process.

FIN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

FIN 498. Internship in Finance (1-3) Prerequisite: Senior status and consent of department chairman. Involves the application of financial concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

FIN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

MANAGEMENT AND MARKETING

Dr. Adams, *chairman*. Dr. A. Anderson, Dr. J. Anderson, Dr. Badarinathi, Mr. Burke, Mr. Davenport, Dr. Garris, Dr. Harper, Mr. Honeycutt, Ms. Honeycutt, Mr. Lewis, Ms. Marshall, Dr. Sherman, Dr. Turner, Dr. West.

The Management and Marketing degree programs provide preparation for careers in product and service organizations. Each program of study is based on a broad educational foundation combined with courses in Accounting, Finance, Management, Marketing, and Economics. Both programs are also designed for students who wish to pursue other professions in legal, governmental, and not-for-profit institutions.

Students are permitted some latitude in selecting courses and may choose to concentrate in Management or Marketing. Within the B.S. degree program with a concentration in Business Management, the student may elect an emphasis in business management or a program of courses designed to meet the specific interest of the student. Within the field of Management, the student selects from courses in human resource management, organization behavior, small business management, and business information systems and should consider additional electives in computer science and the social sciences.

Requirements for a concentration in Business Management for the B.S. degree:

(a) In addition to basic studies and courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 311, 313, 314, 355, 357, 455, Finance 335, and Marketing 340.

(b) Students seeking a study of Business Management will complete, in addition to the courses named in (a) above, Business 358, 412, Economics 320, and three courses from the following: Business 310, 356, 416, 453, 454, 456, 495, Marketing 344, 448.

(c) Students seeking a study of Business Management in an area of particular interest, such as small business management or human resource management, will complete, in addition to the courses named in (a) above, Business 412,

Economics 320, and four courses in the Cameron School of Business Administration numbered above 299 (except 491 and 498) with prior approval of the department chairman.

Requirements for a concentration in Marketing for the B.S. degree:

(a) In addition to basic studies and the courses required for admission to the Cameron School of Business Administration, the following courses must be completed: Business 311, 313, 314, 355, 357, 455, Finance 335, and Marketing 340.

(b) In addition to the courses named in (a) above, the following courses must be completed: Marketing 341, 445, 448, and three courses from the following: Business 412, Economics 320, Marketing 344, 346, 347, 349, 442, 495.

Business Course Descriptions

(Department of Management and Marketing)

BUS 217. Statistical Analysis for Business and Economics (3) Prerequisite: Mathematics 111. Classification and presentation of business and economics data, statistical inference including estimation and hyphothesis testing procedures, Bayesian inference, correlation and regression analysis, expected value, time series, and index numbers.

BUS 310. Business Communications Skills (3) Prerequisite: English 102, Accounting 201, Economics 221. Fundamentals of business communications with emphasis on preparing formal business reports. Emphasis is on the communication processes in management, including primary and secondary research, business writing, and making oral presentations.

BUS 311. Legal Environment of Business (3) Prerequisite: Junior or senior standing. Study of the organization and role of business enterprises in society and their relationships in government. Examines how the legal environment is influenced by changing social and ethical values. Topics include agency, antitrust, forms of business organization, environmental regulation, equal opportunity, labor law, product liability, and property rights.

BUS 313. Computer Applications in Business (3) Prerequisite: Business 217. An introduction to information systems concepts and their applications in the business environment. Emphasis on the skills necessary to communicate with the computer including an introduction to programming using BASIC and utilization of software for analyzing business situations.

BUS 314. Introduction to Management Science (3) Prerequisite: Mathematics 151, Business 217 or Statistics 322, Accounting 201 and Economics 222. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, PERT/CPM, waiting lines, and simulation.

BUS 355. Principles of Management (3) Prerequisite: Accounting 203 or 204 and Economics 221. Managerial principles and practices universally applicable in planning, organizing, staffing, leading, and controlling human and economic resources. The evolution of management thought and ethics is an integral part of the course.

BUS 356. Human Resource Management (3) Prerequisite: Business 355. Evaluation of concepts and approaches used in human resource management and development. Study of manpower planning, selection procedures, performance review, compensation and benefits, equal employment/affirmative action factors, and labor relations. Emphasis is on how personnel specialists and operating managers can improve organizational performance.

BUS 357. Production Management (3) Prerequisite: Business 314 and Business 355. Introduction to the situations operating managers face in the production-operations area. Analysis of concepts, tools and techniques, including production planning and control, materials management, inventory control, and managing the labor force. Particular attention directed to the study of different types of production processes.

BUS 358. Organizational Behavior (3) Business 355. Application of behavioral science concepts in the management of organizations. Emphasis on increasing productivity on the individual, group, and organizational level. Particular attention directed to analyzing organizations, developing motivational programs, designing enriching jobs, leadership development, and managing organizational change.

BUS 412. Commercial Law (3) Prerequisite: Junior or senior standing. Study of the commercial legal environment in which business enterprises operate. Examines the law of contracts, sales and warranties, security interests, commercial paper, and debtor and creditor rights.

BUS 416. Business Information Systems (3) Prerequisite: Business 313 and Business 355. A study of basic systems concepts and information concepts and their application to the analysis, design, implementation and evaluation of computer-based business information systems.

BUS 453. Management of Small Business (3) Prerequisite: Business 311, Business 355, Marketing 340, Finance 335 and senior standing. Examination of the factors involved in managing an existing small business. Emphasis on tailoring the marketing mix to specific target markets, financial planning and control, and operational aspects of small business including supplier relations, taxation, and credit collection.

BUS 454. Entrepreneurship (3) Prerequisite: Business 453. Primary focus on starting a new business. Specific areas include identifying business opportunities, conducting feasibility studies, developing the business plan, evaluating alternative ways of financing new ventures, identifying the appropriate legal form of organization, and managing for tax planning. Purchasing an existing business and acquiring a franchise are also addressed.

BUS 455. Business Policy (3) Prerequisite: Business 311, 355, 357, Marketing 340, and Finance 335. Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is used.

BUS 456. Industrial Relations (3) Prerequisite: Business 356. Analysis of management techniques for the administration of labor agreements; study of collective bargaining and union-management relations; and evaluation of labor relations

in union and non-union organizations. Case studies provide realistic experience for both private and public sector labor relations.

BUS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

BUS 495. Senior Seminar (3) Prerequisite: Business 355 and senior standing. Special topics in management not regularly addressed in other management courses.

BUS 498. Internship in Management (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of management knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

BUS 499. Honors work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Marketing Course Descriptions

(Department of Management and Marketing)

MKT 340. Principles of Marketing (3) Prerequisite: Accounting 203 or 204 and Economics 221. Basic functions, institutions and problems involved in the distribution of goods and services. Emphasis is on integrating the managerial approach with the behavioral, institutional and environment factors.

MKT 341. Marketing Research (3) Prerequisite: Business 217 and Marketing 340. The development and utilization of marketing research techniques for decision making. Emphasis on specifying, obtaining, analyzing, interpreting, and reporting information in the marketing context. Particular attention directed toward Bayesian decision analysis, product research, estimating market potential, sampling, experimental survey, design and test marketing.

MKT 344. Distribution Management (3) Prerequisite: Marketing 340. An introduction to physical distribution from an institutional and managerial perspective. Study of channel structure, legal factors, performance measurement, inventory control, and trends in the channel environment. Emphasis on the design and management of a physical distribution system.

MKT 346. Retail Management (3) Prerequisite: Marketing 340. Examination of the principles and methods of retailing. Study of social, political, ethical, and economic environments. Emphasis on market segmentation, merchandising, and managerial control.

MKT 347. Promotion Management (3) Prerequisite: Marketing 340. Study and evaluation of the concepts and procedures useful in promoting an organization to its external publics. Emphasis on advertising and the mass media, including communication strategy, media use, budgeting, and public relations.

MKT 349. Consumer Behavior (3) Prerequisite: Marketing 340. Application of the principles and techniques of the behavioral sciences to marketing situations. Emphasis placed on how and why consumers behave and how to use this knowl-

edge to develop effective marketing programs. Particular attention to attitude formation, family consumption, decision making, motivation research, and the influences of social status.

MKT 442. International Marketing (3) Prerequisite: Marketing 340. Focus is on the special framework in which international marketing is conducted. Influence of international institutions, culture, stage of economic development, geography and demography are covered. Emphasis on multinational marketing problemss and opportunities in an ever changing world.

MKT 445. Marketing Management (3) Prerequisite: Business 355, Marketing 341 and senior standing. Concepts of demand analysis, formulating marketing strategy, establishing policies and procedures, coordinating marketing action, and evaluating performance.

MKT 448. Sales Management (3) Prerequisite: Business 355 and Marketing 340. Focus on developing and maintaining an effective sales organization. Emphasis on the role of the salesperson, motivating the sales force, and designing and implementing selling strategies.

MKT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MKT 495. Senior Seminar (3) Prerequisite: Marketing 340 and senior standing. Special topics in marketing not regularly addressed in other marketing courses.

MKT 498. Internship in Marketing (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of marketing knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or a not-for-profit organization and a faculty supervisor.

MKT 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

SCHOOL OF EDUCATION

Roy E. Harkin, *Dean*

The School of Education at The University of North Carolina at Wilmington offers programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle School Education, and Special Education and programs leading to secondary (9-12) and special subjects (K-12) teacher certification. In addition, graduate programs in Elementary Education, Reading Education, Special Education and Educational Administration and Supervision are offered.

Responsibility for the degree and certification programs within the School of Education is shared by the Department of Educational Design and Management and the Department of Curricular Studies.

Students wishing to pursue teacher preparation programs must be formally admitted to the School of Education and to the Teacher Education Program. Requirements for admission are:

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
2. Completion of EDN 200, Teacher, School, and Society, with a grade of "C" or better.
3. Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).
4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

EDUCATIONAL DESIGN AND MANAGEMENT

Dr. Ellis, *chairman.* Dr. Applefield, Dr. Bryan, Dr. Doss, Dr. Earle, Dr. Harkin, Dr. A. Hayes, Dr. Hulon, Dr. Johnston, Dr. Wagoner.

The Department of Educational Design and Management provides basic professional education courses for the undergraduate programs in Elementary, Middle School, Secondary, and Special Education and is responsible for the program of study leading to the Master of Education degree in Educational Administration and Supervision.

The Master of Education program in Educational Administration and Supervision is described in the Graduate Studies section of this catalogue.

CURRICULAR STUDIES

Dr. H. Hayes, *chairman.* Dr. Bachner, Dr. Bartolome, Dr. Burton, Dr. Cleare, Dr. Gendernalik Cooper, Dr. Jones, Dr. LaNunziata, Dr. Meyers, Dr. Thomas, Dr. Wright.

The Department of Curricular Studies is responsible for the programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle School Education, and Special Education, the programs leading to secondary (9-12) and special subjects (K-12) teacher certification, as well as the programs leading to the Master of Education in Elementary Education, in Reading Education, and in Special Education.

Within the Bachelor of Arts degree program in Elementary Education, a student may concentrate in Early Childhood Education, which leads to North Carolina teacher certification to teach in kindergarten through grade four, or in Intermediate Education, which leads to certification to teach in grades four through six.

The Bachelor of Arts program in Middle School Education leads to certification to teach in grades six through nine.

The Special Education program prepares teachers to serve mildly handicapped children from kindergarten through grade twelve in public schools and in various other service agencies and leads to North Carolina teacher certification in at least one area of exceptionality: learning disabilities, and mental retardation.

Each degree program is designed to meet North Carolina State Board of Education guidelines for teacher certification and includes recommended courses in basic studies, professional education and collateral areas, and a content specialization. Adjustments in program requirements are made as guidelines change.

The Master of Education programs in Elementary Education, Reading Education, and Special Education are described in the graduate studies section of this catalogue.

DEGREE REQUIREMENTS FOR ELEMENTARY EDUCATION

Common Requirements for Early Childhood and Intermediate Education:

Basic Studies

Courses listed below are selected to meet North Carolina State Board of Education guidelines for elementary teacher certification. They only partially satisfy University basic studies requirements. To complete the University requirements, as listed on pages 67-69 of this catalog, additional courses in either the Humanities or Natural Science and Math areas will be needed. However, these courses may be taken as part of the content specialization.

Basic Skills

English Composition (six semester hours)
English 101
English 102

Physical Education (two semester hours)
Physical Education 101

Humanities (twelve semester hours)
Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
Communication 105
History, six semester hours from the following: History 101, 102, 201, 202

Creative Arts, three semester hours from the following: Art 201, 202, or 204, or Music 105 or 115

Natural Science and Mathematics (ten semester hours)
Natural Sciences: one laboratory course from Biology, Chemistry, Geology, or Physics
Mathematics 141 and 142

Social and Behavioral Sciences (six semester hours)
Political Science 101
Sociology/Anthropology 205

Collateral Requirements

ART 385	Art in the Elementary School
MUS 325	Music Education for Elementary Teachers
PED 304	Health and Safety Education (K-9)
PHY 305	Science for Elementary Teachers

Professional Core

PSY 216	Educational Psychology
PSY 220	Child Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Development I
EDN 202	Instructional Development II

Professional Semester

EDN 410	Seminar in Education (K-4, 4-6, 6-9, Special Education)
EDN 411	Practicum (K-4, 4-6, 6-9, Special Education)

Requirements for a concentration in Early Childhood Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations (K-9)
EDN 322	Teaching of Mathematics (K-4)
EDN 334	Social Studies Curriculum and Instruction (K-9)
EDN 336	The Teaching of Science (K-9)
EDN 344	Books and Materials for Early Childhood Education
EDN 348	The Communication Arts: Reading/Language Arts (K-4)
PED 386	Physical Education in the Primary Grades

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listedbelow. Specialization in one of the four basic curriculum areas—Langauge Arts, Mathematics, Science, Social Studies—is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Art	Music
Health	Physical Education
Language Arts	Science
Mathematics	Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Professional Education Concentration. Students may repeat courses in which they earn a grade lower than "C" only with the permission of the Dean of the School of Education.

Requirements for a concentration in Intermediate Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations (K-9)
EDN 323	Teaching of Mathematics (4-9)
EDN 334	Social Studies Curriculum and Instruction (K-9)
EDN 336	The Teaching of Science (K-9)
EDN 351	Reading/Language Arts Methods for the Middle School (4-9)
ENG 380	Literature for Children
PED 387	Physical Education in the Intermediate Grades (4-9)

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listedbelow. Specialization in one of the four basic curriculum areas—Language Arts, Mathematics, Science, Social Studies—is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Art
Health
Language Arts
Mathematics
Music
Physical Education
Science
Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Professional Education Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR MIDDLE SCHOOL EDUCATION

Basic Studies

Basic studies courses specified below are selected to meet North Carolina State Board of Education guidelines for Middle School teacher certification. They only partially satisfy University basic studies requirements listed on pages 67-69 of this catalog. To complete University requirements, additional courses in Humanities or Natural Science and Mathematics will be needed. However, such courses may be taken as part of the content specialization.

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (12 semester hours)
- Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
- Communication 105
- History
  - Two of History 101, 102, 201, 202

Creative Arts (three semester hours)
- One from Art 201, 202, or 204, or Music 105 or 115

Natural Science and Mathematics (10 semester hours)
- Natural Sciences: one laboratory course from Biology, Chemistry, Geology, or Physics
- Mathematics 141, 142

Social and Behavioral Sciences (three semester hours)
- Political Science 101

Collateral Requirements

Cultural Arts

Select six semester hours from the following: Art 201, 202, 204, 307, 385; Drama 130, 135, 136, 221, 225; Music 116, 117, 118, 361-62-63

Health and Physical Education

Physical Education 304, Health and Safety Education (K-9)

Professional Core

PSY 221	Adolescent Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Program Development I
EDN 202	Instructional Program Development II

Professional Semester

EDN 410	Seminar in Education
EDN 411	Practicum

Requirements for a concentration in Middle School Education for the B.A. Degree:

Professional Education

EDN 318	The Middle School
EDN 250	Reading Foundations

Content Specialization

Two content area specializations must be selected, at least one of which must be from the four basic curriculum areas—Language Arts, Mathematics, Science, Social Studies. Specific course options and credit hour requirements are available from advisors or the department chairperson. A grade of "C" or better is required of all courses in the Professional Core and Professional Education concentration. Students may repeat courses in which they earned a grade of lower than #C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR SPECIAL EDUCATION

General Requirements in Special Education:

Basic Studies

English Composition (six semester hours)
English 101
English 102

Physical Education (two semester hours)
Physical Education 101

Humanities (twelve semester hours)
History 101 or 102
History 201 or 202
Communication 105
English 110, 210, 211, or 212

Creative Arts (six semester hours)
Choose two courses from two different areas
Art 201, 202, or 204
Drama 221 or 225
Music 115

Natural and Mathematical Sciences (13 semester hours)
Natural Science
Choose 2 courses from 2 different science areas. One course must be a lab science.
Biology 105
Chemistry 103
Geography 130 or 230
Geology 101, 120, or 150
Physics 105

Mathematical Sciences
Mathematics 141 and 142

Social and Behavioral Sciences (six semester hours)
Chooose two courses from two different areas.
Economics 105
Political Science 101
Sociology 105, Anthropology 105, or Geography 140

Professional Core

EDN 200	Teacher, School, and Society
EDN 201	Instructional Program Development I
EDN 202	Instructional Program Development II
EDN 250	Reading Foundations (K-9)
EDN 322	Teaching of Mathematics (K-4) or
323	Teaching of Mathematics (4-9)
PSY 216	Educational Psychology
PSY 323	Life Span Human Development

Requirements for a concentration in Special Education for the B.A. Degree:

EDN 260	Introduction to Exceptional Children
EDN 364	Mental Retardation in School and Society
EDN 366	Learning Disabled Children and Adolescents
EDN 367	Behavior Management Techniques
EDN 368	Diagnostic Techniques in Special Education
EDN 369	Prescription Development in Special Education
EDN 370	Behaviorally Disordered Children
EDN 374	Special Education Curriculum and Instruction
EDN 410	Seminar
EDN 411	Practicum
PSY 322	Psychology of Exceptional Children

Content Specialization

Twelve semester hours, in addition to courses used to fulfill Basic Studies and Professional Core requirements, in one of the following areas:

Art	Psychology
Music	Recreation
Elementary Education	Sociology
Physical Education	

A grade of "C" or better is required in all courses in the Professional Core and Special Education Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

Teacher Certification Program in Secondary and Special Subjects

Programs leading to teacher certification are offered in the secondary (9-12) fields of Biology, Chemistry, Geology, English, French, History, Mathematics, Physics, and Spanish, and in the special subject (K-12) field of Physical Education. Also, students who concentrate in History, Political Science or Sociology may fulfill subject matter requirements for Social Studies certification by completing a minimum of 21 semester hours in three Social Studies areas other than the discipline of major concentration.

Students who concentrate in Biology, Chemistry, Earth Science or Physics may fulfill requirements for Science certification by completing 21-23 semester hours in three science areas other than the discipline of major concentration. Students wishing to prepare themselves as secondary teachers are required to fulfill degree requirements in an appropriate academic discipline and to complete the following sequence of professional courses:

PSY 216	Educational Psychology
PSY 221	Adolescent Psychology
EDN 200	Teacher, School, and Society
EDN 201	Instructional Program Development I
EDN 356	Reading in the Secondary School
EDN 408	Instructional Methods
EDN 409	Practicum

Students must take all the professional courses listed above except EDN 408 and 409 and earn a grade of "C" or better beforethe student teaching semester. Students seeking secondary teacher certification must be formally admitted to the Teacher Education Program. Standards for admission are:

(1) Completion of the University requirements in English and Mathematics and a natural science laboratory course with a grade of "C" or better in each course.
(2) Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.
(3) Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).
(4) Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

Education Course Descriptions

EDN 200. Teacher, School, and Society (4) Introduction to profession of teaching that acquaints prospective teachers with diverse roles of teachers. Focuses on teacher as decision-maker; careers in education; social, historical and philosophical foundations of education; governmental and organizational aspects of

schools; and current and future trends in American education. Observation skills are developed through field experience. Three hours of small group instruction, one hour of large group instruction, and a minimum of one hour of off-campus observation each week.

EDN 201. Instructional Program Development I (3) Prerequisite: Education 200 or permission of department chairman. The first of a two-part sequence designed to provide the conceptual tools and analytic skills necessary to plan, implement, and evaluate instructional programs. This course will focus on the fundamental components of instructional development for teachers. Topics of study include instructional theory, types of learning, instructional objectives, planning strategies, task analysis, organization for instruction, and design of instructional systems. Three hours each week.

EDN 202. Instructional Program Development II (3) Prerequisite: Education 201. The second of a two-part sequence in instructional design, this course will develop further the specific skills in instructional development, critical analysis, and communication. Topics of study include selection and evaluation of instructional resources, design of feedback systems, measurement, and data organization and interpretation. Three hours each week.

EDN 250. Reading Foundations (K-9) (3) A foundations course for all elementary and special education majors. Emphasis on linguistic and psychological bases of the reading process, stages in the development of reading ability, and sequences of skill acquisition. Students will study models of reading instruction, the role of the classroom teacher of reading, and forces influencing that role. Three hours each week.

EDN 260. Introduction to Exceptional Children (3) Survey of major categories of exceptionalities including giftedness, mental retardation, hearing impairments, visual impairments, learning disabilities, communication disorders, emotional handicaps, and physical handicaps. Includes definitions, characteristics, etiology, psycho-social implications, and educational intervention of each exceptionality. Three hours each week.

EDN 310. School-Community Relations (3) Methods of improving school-community relations. Three hours each week.

EDN 318. The Middle School (3) An overview of the conceptual and historic development of the middle school. Major emphasis on exploring the educational implications of the developmental characteristics of middle grade learners. The multiple roles of the middle grades teacher, special needs of exceptional students, and organizational/management approaches will be stressed. Three hours each week.

EDN 319. Individualizing Instruction (3) Prerequisite: Education 201 and Psychology 216. This course will focus on strategies for meeting needs of individuals in the regular classroom. Students will study alternative methods for dealing with pupil differences that have an impact on learning. Characteristics of children with academic, intellectual, social-emotional, physical, cultural and language differences will be examined. Three hours each week.

EDN 322. The Teaching of Mathematics, Grades K-4 (3) Prerequisite: Education 201 and six semester hours of appropriate mathematics. Study of methods and

materials for the teaching of mathematics at the kindergarten through fourth grade level. Logical, psychological, and sociological considerations for the teaching of mathematics. Three hours each week.

EDN 323. The Teaching of Mathematics, Grades 4-9 (3) Prerequisite: Education 201 and six semester hours of appropriate mathematics. Focus on materials and methods for teaching mathematics in grades 4-9. Logical, psychological and sociological considerations of the teaching of mathematics. Examination of curricula appropriate at the intermediate and middle school levels. Three hours each week.

EDN 324. Diagnostic Teaching of Mathematics (3) Understanding of psychological and environmental factors that affect learning of school mathematics. Focus on methods and materials appropriate to diagnosis and remediation of mathematics difficulties common at the 6-9 level. Awareness of strategies effective for enhancing self-confidence in mathematics learning. A field based activity is required. Three hours each week.

EDN 334. Social Studies Curriculum and Instruction (K-9) (3) Prerequisite: Education 201, and six hours of social studies content. An overview of curriculum content and various ways of organizing it will be emphasized. The implications of learner developmental characteristics for selecting approaches to instruction in social studies will be explored. Topic selections and sequencing of curriculum will be examined as will the connections between social studies and the social sciences. The course will examiine the places of concept learning, generalizations, and factual knowledge in social studies curriculum. Three hours each week.

EDN 335. Social Studies Education in the Middle Grades (3) Examines the specific ways in which social studies curriculum can be organized to meet the learning needs of middle grades students. Instructional strategies which emphasize problem solving, values investigation, identify bias and interpretation, and the relevance of social inquiry to the real world will be stressed. Three hours each week.

EDN 336. The Teaching of Science (K-9) (3) Prerequisite: Education 201, Physics 305, or two science laboratory courses. Designed for Elementary Education majors seeking certification at the K-9 level. Methods of teaching the biological and physical sciences. Applications of the sciences to classroom experimentation and investigation. Examination of contemporary curricula used at the elementary and middle school level. Three hours each week.

EDN 337. Inquiry—The Method of Science. Prerequisite: A course in science methods or the completion of 15 hours toward a concentration or major in science or permission of instructor. Assumes initial level competency in curriculum and methods of science. Focuses on conceptualization of and rationale for using inquiry method of teaching science. Provides opportunities to acquire and practice skills needed to utilize method and to guide scientific investigation at K-12 levels.

EDN 344. Books and Materials for Early Childhood Education (3) The selection and evaluation of books written for children. Appraisal of illustrations and other instructional media for preschool and primary children, their functions and

correlation with the early childhood curriculum will be studied. Three hours each week.

EDN 348. The Communication Arts: Reading/Language Arts (K-4) (3) Prerequisite: Education 201 and 250. An understanding and appreciation of children's language capabilities at school entrance and patterns of language growth through early school years will be developed. Various approaches to school language instruction will be examined. Students will learn strategies and methods for promoting growth in speaking, listening and writing in primary classrooms. Building on the reading foundations course, students will learn how to teach children and how to integrate reading and language experience. They will have extensive opportunities to assess, teach, and evaluate all areas of children's language and reading development in actual public school classroom. Three hours each week.

EDN 351. Language Arts Methods for the Middle School (4-9) (3) Prerequisite: Education 201 and 250. The status and process of reading/language growth of middle grade children will be studied. Building on the reading foundations course, students will learn how to extend basic reading skills and more specialized content reading skills. They will learn how to foster development of speaking, listening and writing skills as well as children's understanding of the structure and conventions of their language. Students will teach a variety of supervised lessons using an integrated reading/language arts approach as well as individualized instruction model. Three hours each week.

EDN 355. Developing Reading Competence in the Middle School (3) Prerequisite: Education 202, and Psychology 221 or Education 318. Presents background and methodology for fostering and evaluating reading abilities of intermediate and middle school level students, both in language arts classes and in other subjects. Topics include comprehension and study skills needed for reading to learn in all areas of the curriculum, organizational and managerial strategies for reading instructionin grades 4-9, and techniques for motivating reluctant readers. Field experiences required. Three hours each week.

EDN 356. Reading in the Secondary School (3) Prerequisite: Education 201. Required course in the teaching of reading for secondary majors. Basic instructional reading strategies are developed, with emphasis on introducing assignments, improving study skills, and fostering critical thinking. Students identify and learn to teach reading skills specific to varying content areas. Adjusting instruction to students' reading capabilities is stressed. Three hours each week.

EDN 364. Mental Retardation in School and Society (3) Examination of field of mental retardation from an educational perspective. Study of etiology, definitions, characteristics, and historical and current approaches to the education of the mentally retarded. Includes study of all levels of severity of mental retardation. Three hours each week.

EDN 366. Learning Disabled Children and Adolescents (3) Examination of the field of learning disabilities. Emphasis on the concept of learning disabilities, etiology, diagnosis, characteristics, teaching strategies, theory, historical influences, and current trends. Three hours each week.

EDN 367. Behavior Management Techniques (3) Prerequisite: Education 200 or 201 or consent of instructor. Designed to develop an understanding of the prin-

ciples of behavior and their application in planning and implementing various behavior management strategies. Focus will be on observation and measurement of social behavior management techniques in the special education and regular education classroom.

EDN 368. Diagnostic Techniques in Special Education (3) Prerequisite: Education 201 and one of the following: Education 260, 364, or 366. Examination of concept and fundamentals of educational assessment. Includes examination of formal and informal diagnostic techniques appropriate for mildly handicapped children. Includes assessment of intellectual functioning, reading, mathematics, written expressions, spoken language, perception, and social-emotional skills. Three hours each week.

EDN 369. Prescription Development in Special Education (3) Prerequisite: Education 201 and 368. Development of skill in planning educational programs for exceptional children. Includes writing instructional objectives, selecting appropriate materials and techniques, writing lesson plans, and formulating individual educational programs. Three hours each week.

EDN 370. Behaviorally Disordered Children and Youth (3) Prerequisite: Education 200 and 201 or consent of the instructor. Designed to examine the wide and complex variety of learners labeled as "behaviorally disordered" or "emotionally disturbed". Topics related to historical, theoretical, etiological, developmental, and symptomological issues plus diagnosis, identification and major teaching strategies will be introduced. Program and parent involvement models and current trends and issues will be reviewed. Three hours each week.

EDN 371. Programming and Interventions for Behavioral Disordered Students (3) Prerequisite: Education 370 and Education 367. Examination of problems, issues and practices in developing programs for and educating students with behavioral disorders. Emphasis on assessment strategies, academic and social needs, major interventions, family involvement, scheduling issues, applied behavior analysis, systematic/directive teaching, and service delivery options. Legal considerations, consultation strategies and curriculum issues will be reviewed.

EDN 372. Programming and Interventions for Learning Disabled Students. (3) Prerequisite: Education 366. Study of the characteristics of learning disabled students and their educational implications. Emphasis on service delivery options, needs of LD individuals relevant for instruction, medical interventions, behavioral interventions, family involvement, pre-school programming, secondary programming, remediation strategies, and compensation strategies.

EDN 373. Programming and Interventions for Mentally Handicapped Students (3) Prerequisite: Education 364 or Education 260. Study of the Characteristics of persons with mental retardation and the implications of these characteristics for programming. Emphasis will be on programs in school, community, and institutional settings. Needs of persons with mental retardation during the preschool, school, and postschool years will be studied.

EDN 374. Special Education Curriculum and Instruction. (3) Prerequisite: Education 250, Education 322/323, Education 260 and at least one of the following: Education 364, 366, 370. Study of the curriculum areas and instructional techniques utilized in educational settings for learning disabled, mentally retarded,

and behaviorally/emotionally handicapped students. Emphasis on curriculum development processes, design of lesson and unit plans, selection of materials, identification of instructional procedures, data-based decision making, and consultation with other educators of exceptional learners.

SCHOOL OF NURSING

Marlene M. Rosenkoetter, *Dean*

Bachelor of Science Degree

Ms. Gilliland, Dr. Gray, Ms. Lowe, Ms. Majette, Ms. Payne, Ms. Stone.

The School of Nursing at The University of North Carolina at Wilmington offers a program leading to the Bachelor of Science degree with a concentration in professional nursing. The purpose of this baccalaureate program is to prepare a generalist who processes the knowledge, skills, and attitudes with which to practice family-centered professional nursing in a variety of current and emerging health care delivery systems. In addition, the program is designed to provide a foundation for graduate nursing education. Through interactions with clients—individual persons, families and communities—and other health care professionals, nursing graduates will contribute toward meeting the wide-ranging needs of the region, state, and the larger community.

Program Objectives

The graduate of The University of North Carolina at Wilmington baccalaureate program in nursing is able to:

(1) Practice family-centered professional nursing based upon a conceptual framework in a variety of settings.

(2) Interact with individuals, families, and communities to promote an environment conducive to health.

(3) Utilize the nursing process in the delivery of health care to individuals, families, and communities.

(4) Base professional practice upon a synthesis of knowledge from social, behavioral, and natural sciences, nursing theory and research.

(5) Demonstrate commitment and accountability to health care consumers and to professional standards.

(6) Function as a self-directed learner who assumes responsibility for continued personal and professional growth.

(7) Assume a leadership role in the provision and coordination of health care through collaborative relationships with other health care professionals.

(8) Influence present and emerging roles of nursing practice to meet the health care needs of a changing society.

(9) Stimulate change within clients and health care delivery systems to more effectively promote the health of the community.

Degree Requirements for Bachelor of Science Degree Concentration in Nursing
SAMPLE SCHEDULE
FIRST YEAR

Fall Semester			Hours	Spring Semester			Hours
ENG	101	English Composition	3	ENG	102	English Composition	3
PED	101	Found. of Physical Activity	2	SOC	105	Intro. to Sociology	3
PSY	105	General Psychology	3	CHM	215	Organic/Biologic Chemistry	4
MAT	111	Precalculus Mathematics	3	Humanities Electives			6
CHM	115	Fund. of General Chemistry	4	TOTAL			16
TOTAL			15				

SECOND YEAR

Fall Semester			Hours	Spring Semester			Hours
BIO	240	Human Anatomy & Physiology	4	BIO	241	Human Anatomy & Physiology	4
PSY	323	Lifespan Human Development	3	BIO	246	Microbiology of Human Diseases	4
Creative Arts Elective			3	SOC	345	Sociology of the Family	3
Humanities Elective			3	+NSG	115	Intro. to Contemporary Nursing*	1
Free Elective			3	Humanities or Creative Arts Electives**			3
TOTAL			16	TOTAL			15

Summer Session I				Summer Session II			
NSG	200	Intro. to Nursing Assess/Int. I	2	NSG	250	Intro. to Nursing Assess/Int. II	2
NSG	200-51	Intro. to Nursing Assess/Int. I Laboratory	1	NSG	250-51	Intro. to Nursing Assess/Int. II Laboratory	1
TOTAL			3	TOTAL			3

* **Can be taken concurrently with NSG 200 (transfer students)**

** **12 hours Humanities and 3 hours Creative Arts, or 9 hours Humanities and 6 hours Creative Arts.**

\+ **A minimum grade of "C" is required in each nursing course.**

THIRD YEAR

Fall Semester		Hours	Spring Semester		Hours
NSG	300 Nursing Process I	5	NSG	350 Nursing Process II	5
NSG	300-51 Nursing Process I Laboratory	3	NSG	350-51 Nursing Process II Laboratory	3
NSG	310 Interactions in Nursing Prac. I	3	NSG	360 Interactions in Nursing Prac. II	3
NSG	315 Nature of Man & Health in Modern Society	3	STT	210 Intro. to Statistics with Applications in Health Sciences	3
Free Elective (or senior year)		(3)			
TOTAL		14-17	TOTAL		14

FOURTH YEAR

Fall Semester		Hours	Spring Semester		Hours
NSG	400 Nursing Process III	4	NSG	450 Nursing Process IV	5
NSG	400-51 Nursing Process III Laboratory	3	NSG	450-51 Nursing Process IV Laboratory	3
NSG	410 Interactions in Nursing Practice III	3	NSG	460 Interactions in Nursing Practice IV	3
NSG	415 Research in Nursing	3	NSG	490 Advanced Nursing Practicum	1
TOTAL		13	Free Elective (or junior year)		(3)
			TOTAL		12-15

TOTAL HOURS: 57 hours - Concentration in Nursing (46%)
67 hours - Basic Studies and Collateral (54%)

Admission to the School of Nursing is dependent on University admission, approval of the Admissions Committee of the School of Nursing, and meeting admission criteria, including the completion of required prerequisite courses.

Time Limits: Nursing courses must be completed within a consecutive six calendar year period of time.

Ten-Year Rule: Non-nursing courses which are more than ten years old will be evaluated by the School of Nursing faculty for currency and credit.

RN ACCESS Program For Registered Nurses

Prerequisite Courses	Hours
ENG 101 English Composition	3
ENG 102 English Composition	3
MAT 111 Precalculus Mathematics	3
PED 101 Fundamentals of Physical Activity	2
CHM 115 Fundamentals of General Chemistry	4
CHM 215 Organic/Biologic Chemistry	4
BIO 240 Human Anatomy and Physiology	4
BIO 241 Human Anatomy and Physiology	4
BIO 246 Microbiology of Human Diseases	4
PSY 105 General Psychology	3
PSY 323 Lifespan Human Development	3
SOC 105 Introduction to Sociology	3
SOC 345 Sociology of the Family	3
STT 210 Intro. to Statistics with Application in the Health Sciences*	3
Humanities Electives	9
Creative Arts Electives	3
Humanities or Creative Arts Electives	3
Free Electives*	6
TOTAL PREREQUISITE CREDITS	67 (54%)

* STT 210 and one three-credit free elective may be taken concurrently with nursing courses.

Degree Requirements for Bachelor of Science Degree

Concentration in Nursing

RN ACCESS Program

SAMPLE SCHEDULE*

Summer Session I		Hours	Summer Session II		Hours
NSG 219	Interactions in Contemporary Nursing I	3	NSG 250	Introduction to Nursing Assessment and Interven. II	2
	TOTAL	3	NSG 250-51	Intro. to Nursing Assessment and Interven. II Lab	1
				TOTAL	3

Fall Semester			Hours
NSG	379	Interactions in Contemporary Nursing II	1
NSG	389	Nursing Process in Contemporary Nursing	3
NSG	389-51	Nursing Process in Contemporary Nursing Lab	3
NSG	410	Interactions in Nursing Practice III	3
NSG	415	Research in Nursing	3
		TOTAL	13

Spring Semester			Hours
NSG	450	Nursing Process IV	5
NSG	450-51	Nursing Process IV Lab	3
NSG	460	Interactions in Nursing Practice IV	3
NSG	490	Advanced Nursing Practicum	1
		TOTAL	12

Credit by Placement	26
Nursing Concentration Credits	31
Total Nursing Hours	57 (46%)

* NOTES

1. Courses numbered above 400 are taken with students in the generic baccalaureate program.

2. Registered nurses admitted to the RN ACCESS Program of the UNC-Wilmington School of Nursing are required to verify their previous nursing education and experience by achieving a satisfactory score on the National League for Nursing Mobility Profile II tests and a clinical verification examination. Schedules for test dates are available in the office of the Director, RN ACCESS Program. The Nursing Mobility Profile II consists of three tests:

a. Care of the Adult Client
b. Care of the Client during Childbearing/Care of the Child
c. Care of the Client with Mental Disorder

A fee is charged for these tests.

A total of 26 semester hours of placement credit will be awarded to registered nurses upon satisfactory completion of all examinations.

3. Additional information can be obtained from the Director, RN ACCESS Program, UNC-Wilmington, School of Nursing (919) 395-3723.

BACHELOR OF SCIENCE DEGREE

Nursing Course Descriptions

NSG 115. Introduction to Contemporary Nursing (1) Prerequisite: Sophomore status. Open to non-nursing majors with consent of instructor. An overview of the historical development of nursing with discussion of significant persons, issues

and events. Nursing education alternatives, various roles of professional nurses in contemporary practice, basic legal ethical issues, and criteria which differentiate professional practice are described. Introduces the conceptual framework of the UNCW baccalaureate Nursing program. One hour each week.

NSG 200. Introduction to Nursing Assessment and Intervention I (2) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200-51. An introduction to concepts and techniques of professional nursing practice. Includes concepts of nursing process, role, health, illness, communication, self-awareness, growth and development, responsibility and accountability, change, needs, client teaching, leadership, prevention, and nursing research. Selected basic nursing techniques associated with these concepts are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer school).

NSG 200-51. Introduction to Nursing Assessment and Intervention I Laboratory (1) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200. Provides the opportunity for clinical application of the introductory concepts and techniques of professional nursing practices which are taught in Nursing 200. Students apply these concepts with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer school).

NSG 250. Introduction to Nursing Assessment and Interventions II (2) Prerequisite: Nursing 200, 200-51 or Nursing 219. Corequisite: Nursing 250-51. An introduction to the concepts and techniques of health assessment including interviewing and history-taking, developmental assessment, psychosocial assessment, and physical assessment. Nursing process provides the major framework for focusing on assessment of individual adults and identifying opportunities for primary prevention. Assessment techniques are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer school).

NSG 250-51. Introduction to Nursing Assessment and Interventions II Laboratory (1) Prerequisite: Nursing 200, 200-51 or Nursing 219. Corequisite: Nursing 250. Provides the opportunity for clinical application of introductory concepts and techniques of health assessment which are taught in Nursing 250. Assessments are performed with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer school).

NSG 300. Nursing Process I (5) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300-51. Focuses on utilization of the nursing process with families, incorporating communication patterns, family development and the professional nurse's role in primary prevention with families. Basic research findings are incorporated and additional nursing techniques are acquired. Beginning concepts of secondary prevention are introduced. Five hours each week.

NSG 300-51. Nursing Process I Laboratory (3) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300. Provides the opportunity for clinical application of the concepts and techniques which are taught in Nursing 300. The nursing process is utilized with families in all phases of the life cycle, focusing on primary prevention. Selected secondary prevention related to screening in healthy populations is implemented. Twelve hours clinical laboratory each week.

NSG 310. Interactions in Nursing Practice I (3) Prerequisite: Nursing 250, 250-51. Prerequisite or Corequisite: Nursing 300, 300-51. Emphasizes elements of the teaching-learning process and related principles of change, decision-making, communication and assertiveness. Selected literature is reviewed, as a teaching project is implemented with a designated family. Three hours each week.

NSG 315. Nature of Man and Health in Modern Society (3) Prerequisite: Nursing 115, 250, 250-51. Establishes a foundation for the professional nursing role through an examination of selected historical events, legal and ethical frameworks for practice, standards for nursing, key issues in health care, current issues in nursing, nursing theories, and models of nursing care delivery. Three hours each week.

NSG 350. Nursing Process II (5) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350-51. Focuses on utilization of the nursing process with families who have a member in an acute care setting. A foundation is developed for secondary prevention, including pathophysiology, psychopathology, relevant theories and research, and nursing roles and functions. Additional nursing techniques needed for secondary prevention are required. Five hours each week.

NSG 350-51. Nursing Process II Laboratory (3) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350. Provides the opportunity for clinical application of the concepts and techniques taught in Nursing 350. The nursing process is utilized with families who have a member in an acute care setting, focusing on secondary prevention. Twelve hours clinical laboratory each week.

NSG 360. Interactions in Nursing Practice II (3) Prerequisite: Nursing 310, 315. Corequisite: Nursing 350, 350-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership, and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. Teaching-learning principles are applied with a group of clients. Three hours each week.

NSG 400. Nursing Process III (4) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400-51. Focuses on utilization of the nursing process with families who have a member in a critical care setting and development of a framework for more advanced secondary prevention. Beginning concepts of tertiary prevention are introduced and additional nursing techniques pertaining to advanced secondary prevention are acquired. Four hours each week.

NSG 400-51. Nursing Process III Laboratory (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400. Provides the opportunity for clinical application of the advanced secondary prevention concepts and techniques which are taught in Nursing 400. The nursing process is utilized with families who have a member experiencing a life-threatening illness or crisis. Twelve hours clinical laboratory each week.

NSG 410. Interactions in Nursing Practice III (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400, 400-51. Prerequisite or Corequisite: Nursing 379, 389,389-51. Emphasizes elements of community assessment and related principles of epidemiology, health planning, social and political change, environmental management, and levels of prevention. Community resources and data

sources are incorporated into the implementation of an assessment for a selected community. Three hours each week.

NSG 415. Research in Nursing (3) Prerequisite: Statistics 210, Nursing 350, 350-51, 360. Prerequisite or Corequisite Nursing 379, 389, 389-51. Examines research process as applied to nursing. Research terminology, methodology, and applicability of research findings for clinical practice are emphasized. Computer uses and ethical decision-making are incorporated. Principles of research are applied in developing a preliminary proposal for a nursing research project of limited scope.

NSG 450. Nursing Process IV (5) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450-51, 460. Focuses on the 34 utilization of the nursing process with individuals, families, and groups who have and groups who have complex health needs. A conceptual framework for clinical practice based on related beliefs, theories, and research is developed, and provides the foundation for the role of the nurse in tertiary prevention. Five hours each week.

NSG 450-51. Nursing Process IV Laboratory (3) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450, 460. Provides the opportunity for the clinical application of concepts and techniques taught in Nursing 450 and Nursing 460. The nursing process is utilized with individuals, families, and groups who have complex health needs, and the student assumes responsibility for coordinating or directing the care of a group of clients. Twelve hours clinical laboratory each week.

NSG 460. Interaction in Nursing Practice IV (3) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450, 450-51. A seminar focusing on nursing leadership and management for the professional nurse. Included are: related concepts and theories of organization, change, power and authority, and role development; models of nursing care delivery; legal ramifications of delegation; models of quality assurance; computer applications in nursing management; and transitional issues for the graduate. Three hours each week.

NSG 490. Advanced Nursing Practicum (1) Prerequisite: Nursing 400, 400-51, 410, 415 or Nursing 389, 389-51, 410, 415. Provides the opportunity for clinical application of the nursing process to a selected area of nursing practice as the student integrates the concepts of research, prevention, and change into a clinical project. Emphasis on further development of nursing skills, knowledge and leadership, and establishing collegial relationships. Four hours clinical practicum each week.

NSG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing; consent of instructor; Nursing 300, 300-51 or Nursing 389, 389-51.

NSG 499. Honors Work in Nursing (2-3) Prerequisite: Eligibility for honors program; Nursing 300, 300-51 or Nursing 389, 389-51. Individual study for honors students.

Courses for Registered Nurses Only

NSG 219. Interactions in Contemporary Nursing I (3) Prerequisite: Admission to the RN ACCESS Program in the School of Nursing. An overview of fundamental concepts for professional nursing practice. Emphasizes nursing process, health,

illness, communication, responsibility and accountability, leadership, prevention, change, decision-making and research in professional nursing practice. Introduces nursing theories and the conceptual framework of the UNCW baccalaureate Nursing Program. A teaching project is implemented with an individual client. Ten lecture hours per week (summer school).

NSG 379. Interactions in Contemporary Nursing II (1) Prerequisites: Nursing 219, 250 and 250-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. One hour each week.

NSG 389. Nursing Process in Contemporary Nursing (3) Prerequisites: Nursing 219, 250, and 250-51. Corequisite: Nursing 389-51. Focuses on utilization of the nursing process with families in all phases of the life cycle. Incorporates communication patterns, family development and prevention. A clinical framework is developed from relevant theories and research. Nursing roles of career provider, coordinator, client teacher and advocate are explored. Responsibility and accountability for interactions with families are emphasized as the need for change within family and health care deliverysystems is identified. Three hours each week.

NSG 389-51. Nursing Process in Contemporary Nursing Laboratory (3) Prerequisite: Nursing 219, 250, 250-51. Corequisite: Nursing 389. Provides the opportunity for clinical application of concepts and techniques taught in Nursing 389. The nursing process is utilized with families during all phases of the lifecycle in community and acute care setting. Twelve hours clinical laboratory each week.

PROFESSIONAL PROGRAMS

MEDICAL TECHNOLOGY

Advisor: Mrs. Kendrick

UNCW students interested in Medical Technology have two programs of study from which to choose.

1. A five-year program which includes earning a Bachelor's degree with a major in either Biology or Chemistry and completion of an additional year of training at an accredited hospital.

*2. A four-year program leading to a Bachelor of Science degree with a concentration in Medical Technology. The first six semesters (90 semester hours) of this program are completed on campus with the final year (12 months) spent in training at an affiliated hospital. The affiliated hospitals are:

Bowman Gray School of Medicine/North Carolina Baptist Hospital, Winston-Salem, N.C.
Charlotte Memorial Hospital, Charlotte, N.C.
Forsyth Memorial Hospital, Winston-Salem, N.C.
Mercy Hospital, Charlotte, N.C.
New Hanover Memorial Hospital, Wilmington, N.C.
Presbyterian Hospital, Charlotte, N.C.

Upon successful completion of this four-year program, the student will receive the Bachelor of Science degree with a concentration in Medical Technology.

Completion of the first years of study at UNCW does not assure the student admission to the year of clinical training at a hospital. There is competition for the limited space available; therefore, application to the preferred hospital should be made early in the fall of the last year at UNCW. Such application is the responsibility of the student. Guidance by the faculty advisor should be sought, since entrance requirements may differ at various hospitals.

As a part of the admission process, some hospital facilities require that applicants take the Allied Health Professions Test. This test is given at specified institutions each year. See the advisor about time and place.

***Students majoring in Medical Technology must file and pay for graduation during the first semester of the junior year. This application is filed in the office of the Registrar.**

The curriculum prescribed during the first three years at UNCW includes the following:

1. Basic Studies requirements—45 semester hours.
2. Requirements for a concentration in Medical Technology for the BSMT degree:

BIO 108 Introduction to Medical Technology (1)
BIO 205 Introductory Biology: Plants (4)
BIO 206 Introductory Biology: Animals (4)
BIO 207 Introductory Biology: Cells (3)
BIO 208 Methods of Biological Research (3)
BIO 341 Clinical Calculations (1)
BIO 345 Animal Physiology (4) *or* BIO 347 Cell Physiology (4) Mycology
BIO 425 Microbiology (4)
BIO 441 Introduction to Immunology (1)
CHM 101-102 General Chemistry (4-4)
CHM 311-312 Organic Chemistry (4-4)
MAT 111 Precalculus Mathematics (3) *or* MAT 115 Elementary Mathematical Analysis

Recommended elective courses:

BIO 235 Genetics in Human Affairs (3)
BIO 335 Genetics (4)
BIO 465 Biochemistry (3)
BIO 495 Seminar (in related areas) (1)
CHM 325 Physical Chemistry (4)
*CHM 335 Quantitative Analysis (4)
PHY 101-102 Elementary College Physics (4-4)
STT 215 Introduction to Statistics (3)
Computer Science Courses

*Very highly recommended

Choice of elective course should be made jointly by the student and the Medical Technology advisor.

During the clinical training year at the affiliated hospital, the final 34 semester hours are earned from the courses listed below. Credit for these courses may not be counted toward any other degree at The University of North Carolina atWilmington.

Medical Technology Course Descriptions

MT 401. Immunology-Serology (2) A study of the innate and adaptive immune response mechanisms in the body and the laboratory methods used to evaluate these responses. Special emphasis on serological techniques.

MT 405. Hematology (8) A study of the formation, morphology, and functions of human blood cells, primary and secondary hematological diseases and clinical laboratory tests for diagnosing them; hemostasis and the evaluation of clotting disorders.

MT 407. Immunohematology (4) A study of the clinical transfusion service, including collection and handling of donor blood and its components, blood typing, compatibility testing between donor and recipient blood and between maternal and fetal blood, and identification of factors responsible for incompatibilities.

MT 412. Clinical Microbology (8) A study of the medically important bacteria, fungi, viruses, parasites, and associated infectious diseases; special emphasis on the

study of appropriate clinical specimens for isolation and identification of microorganisms involved in the infectious process and on testing these isolates for antibiotic susceptibility.

MT 414. Clinical Microscopy (2) Chemical and microscopic study of urine and other body fluids in health and disease, microscopic analysis of urinary sediment, and study of renal physiology.

MT 420. Clinical Chemistry (8-10) Study of the biochemical analyses of blood and other body fluids to evaluate the enzymes, hormones, electrolytes, drugs, and other important chemicals in the body; use and maintenance of sophisticated instrumentation and quality control.

MT 490. Special Topics in the Clinical Laboratory Sciences (1-2)

NURSING

Advisors: Ms. Majette, Ms. Payne, Ms. Stone, Dr. Gray (Registered Nurses only)

The University provides a four-year program leading to a Bachelor of Science degree with a concentration in nursing. Upon successful completion of the program and the recommendation of the faculty, graduates are eligible to write the licensure examination for registered nurses.

For further information on the Nursing program, refer to the section of this catalog which describes School of Nursing programs, requirements, and course offerings.

THE TEACHER EDUCATION PROGRAM

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have completed 45 semester hours of college credit, have a minimum grade point average of 2.0, have completed the University basic skills requirements in English and Mathematics and a Natural Science laboratory course with a grade of at least "C" in each course, have completed EDN 200, Teacher, School and Society, with a grade of "C" or better, and have passing scores on the basic studies test specified and mandated by the Board of Education of the State of North Carolina.

The University provides degree certification programs for elementary, middle school, secondary, and special education teachers. For further information, refer to the section of this catalog which describes School of Education programs, requirements, and course offerings.

PRE-PROFESSIONAL PROGRAMS

PRE-AGRICULTURE AND PRE-FORESTRY

Pre-Agriculture Advisor: Dr. Merritt
Pre-Forestry Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students to transfer to schools offering professional training in the two fields. The

programs are designed to meet the requirements and recommendations of the professional schools and students should plan their programs in consultation with the pre-agriculture or pre-forestry advisor.

PRE-ENGINEERING

Advisors: In General College Advising Center

The University offers courses in pre-engineering for students who may transfer to a specialized engineering school after one or two years.

General Requirements: Mathematics 161 (students with insufficient background may begin with MAT 115 or even MAT 111), 162, 261, 361; Chemistry 101, 102; Computer Science 121; Engineering 111; Physics 201, 202; English 101, 102, and one literature course; Economics 221 or 105; one History course;

Physical Education 101 (PED 102 is not required for graduation; however, four semesters of PE are required to graduate from N.C. State University); and one elective (Civil Engineering students should consider Geography 320).

Specific Requirements:
Chemical Engineering: Chemistry 311, 312
Civil Engineering: Geology 101; Engineering 211, 212
Electrical Engineering: See advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major in any discipline that fulfills the requirements for a baccalaureate degree at UNCW. In developing a Pre-Law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words; (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities, the association recommends a pre-legal education of "the broadest scope." To accomplish these goals The University of North Carolina at Wilmington offers a wide range of Pre-Law courses. Although Political Science and Business are frequently selected by Pre-Law students as their major, Economics, History, Sociology and others are sometimes selected. Regardless of the area of concentration, the Pre-Law student should be zealous in the selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the Pre-Law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is desirable and highly recommended.

Finally, the Pre-Law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectual discipline. "The best trained applicant for law school," states the Association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school should apply in time to insure that their completed file is available by January 1 of the year they plan to enter. This means that they should register for either the June or October administration of the Law School Admissions

Test and for the Law School Data Assembly Service. The LSAT and the LSDAS are explained fully in the Law School Admission Bulletin which is available in the Department of Political Science. Additional information and advice may be secured from the Pre-Law advisor in the Department of Political Science.

PRE-MEDICINE, PRE-DENTISTRY, AND PRE-OPTOMETRY

Advisor: Dr. Ned H. Martin

The University of North Carolina at Wilmington offers an excellent opportunity to students desiring preprofessional training in dentistry, medicine, or optometry. Although specific requirements may vary among various schools, all emphasize core courses in biology, chemistry, mathematics, and physics. These courses could be incorporated in almost any major, and students should give consideration to a major which they find interesting and in which they feel confident. Students majoring in the natural sciences should have a broad background in the humanities and social sciences areas. Most medical and dental schools recommend that students receive a bachelor's degree (B.A. or B.S.) before admission. While planning their curriculum, students should keep in mind the graduation requirements which include a total of 124 credit hours, the basic studies requirements, and the requirements of their chosen area of concentration. Pre-medicine, pre-dentistry, and pre-optometry are not majors; however, there are B.A. degree programs in Biological Sciences, in Chemistry, and in Physics with an emphasis in the pre-medical sciences.

In addition to the required core courses, almost all medical schools require taking the Medical College Admission Test (MCAT), dental schools require taking the Dental Admission Test (DAT), and optometry schools require taking the Optometry College Admission Test (OCAT) prior to consideration for admission. Scores on these tests constitute an important part of the admission criteria. Students usually take these tests during their junior or early senior year.

High academic achievements should be coupled with extracurricular activities as most professional schools prefer students who are well-rounded.

Required Courses

The following courses fulfill the *minimum* requirements of a large number of medical and dental schools.

General Chemistry (CHM 101-102 with labs)
Organic Chemistry (CHM 311-312 with labs)
Quantitative Analysis (CHM 335 with lab)
Animal Biology (BIO 206)
Cell Biology (BIO 207)
Comparative Vertebrate Anatomy (BIO 315)
Physics (PHY 101-102 or 201-202)
Precalculus Mathematics (MAT 111-112 or 115)

Additional Recommended Courses

Calculus (MAT 151-152 or 161-162)
Biochemistry (BIO 465 or CHM 465)
Medicinal Chemistry (CHM 417)
Animal Physiology (BIO 345)
Advanced Organic Chemistry (CHM 415)
Vertebrate Embryology (BIO 316)
Genetics (BIO 335 or 235)
Physical Chemistry (CHM 325 or 321-322)
Cell Physiology (BIO 347)

The pre-medical advisor helps students in curricular planning, academic progress, preparation for admission tests, and with application for admission to professional schools. The Premedical Sciences Advisory Committee composes a consensus evaluation of each applicant to medical science profession schools. Students interested in a career in the health sciences should consult the advisor for additional information as early as possible in their academic programs.

PRE-PHARMACY

Advisor: Dr. Sayed

Students interested in careers in Pharmacy should consult with the Pre-Pharmacy advisor before arranging their academic schedules. Basic coursework in Biology, Chemistry, Physics, and Mathematics is required, as well as additional studies in the Social Sciences and Humanities in the two-year Pre-Pharmacy program. Students should arrange through their advisor to take the Pharmacy College Admission Test (PCAT) in November of their second year. Applications to pharmacy schools should be made in the fall or winter of the second year.

PRE-VETERINARY MEDICINE

Advisor: Dr. Ballard

The student interested in applying to a school of veterinary medicine may complete basic requirements for admission at The University of North Carolina at Wilmington. Specialized courses not offered at this institution must be taken elsewhere. The only school of veterinary medicine in North Carolina is located at North Carolina State University in Raleigh.

Students planning to pursue a career in veterinary medicine should consult with the advisor to plan the program of study.

SPECIAL PROGRAMS

MARINE SCIENCES

Marine Science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the University's main campus as well as specialized research activities associated with its Institute for Marine Biomedical Research at Wrightsville Beach.

The programs in Marine Sciences on the University's main campus consist of a Marine Biology curriculum leading to the B.S. degree, a Marine Biology curriculum leading to the M.S. degree, and a Faculty Marine Science Research Program.

MARINE BIOLOGY CURRICULUM

The UNCW Marine Biology curriculum is a unique baccalaureate program in the University system. It includes a strong foundation of Biology with an emphasis in Marine Biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work in many Marine Biology courses. Approved collateral requirements include marine-oriented courses in

Math, Physics, Chemistry and the Earth Sciences. The curriculum is flexible enough to meet the individual needs of the student enabling preparation for graduate studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in Marine Biology are listed under Biology in the Degree Program Requirements section of this catalogue.

MARINE BIOLOGY GRADUATE PROGRAM

The graduate program leading to the Master of Science degree in Marine Biology includes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each of these tracks is designed to provide the necessary latitude to allow students to develop programs of study appropriate to their needs. Further information is given in the Graduate Studies section.

MARINE SCIENCE RESEARCH PROGRAM

The Marine Science Research Program has many active participants with research interests covering areas of Marine Biology, Physical and Chemical Oceanography, Marine Geology and Marine Biogeography. There are two categories of participants in the program: those who hold research positions and those who hold regular teaching positions but who are also engaged in Marine Science research. All participants are involved in the Marine Science instructional program.

INSTITUTE FOR MARINE BIOMEDICAL RESEARCH

The Institute for Marine Biomedical Research constitutes a major component of the overall Marine Science development effort at UNCW and has the dual mission of conducting research programs of the highest quality and utilizing these programs as an instrument in the education of students. The Institute provides a link between studies of medical sciences and human biology and studies of marine sciences and the marine environment. This role distinguishes it from other institutions dedicated to Marine Biology or to Oceanology, and renders it unique in the State of North Carolina and the entire United States.

The Institute's scientific program focuses on three related areas. Experimental Biology addresses itself to broad problems of adaptation and acclimatization of animal life at all levels of development to the environmental stresses characteristic of the marine environment. Biomedical studies are concerned in particular with the higher vertebrate species that invite comparison with mammals and humans in brain and central nervous system function, structure, pharmacology, and studies of regulator processes, such as temperature regulation. The Experimental Oceanology program covers a broad range of efforts related to the ocean environment, using the ocean as a laboratory in which the methods of experimental science can be applied to the solution of problems related to management, conservation, and development of marine life.

Supporting the Institute's research program are a series of specialized facilities, including the complex of deep-sea simulators capable of simulating ocean depths of 30,000 feet, a biochemistry laboratory, histology laboratory, a photographic laboratory, and electronic and machine shops. In addition, the Institute is continuing to sponsor large-scale expeditionary research in such regions as the Atlantic, Caribbean, the South American Andes, and Lake Baikal (the world's deepest lake) in Central Siberia.

ENVIRONMENTAL STUDIES CURRICULUM

The Environmental Studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes students to a broad range of

analytical procedures in the natural and social science, while allowing them to develop special capabilities within their primary area of interest.

The curriculum is divided into two parts: a multidisciplinary core consisting of course work in the natural and social sciences, including an environmental impact seminar, and an area of specialization consisting of course work within approved disciplines. Those who wish to emphasize Marine Science may do so by electing an approved sequence of courses in Marine Science. Other available concentrations include: Biology, Chemistry, Earth Sciences, Economics, Management, Mathematics, Physics, Political Science, Psychology, Sociology and Anthropology. Requirements for the B.A. degree in Environmental Studies are listed in the Degree Program Requirements section of this catalogue.

FIELD EXPERIENCE IN BIOLOGY

The Department of Biological Sciences offers a summer field experience in various biological disciplines at selected areas within and outside the continental United States. Participating students may conduct individual or group research, with faculty guidance, on both marine and terrestrial organisms. Research already has been conducted in such places as the Florida Keys, the Bahamas, and parts of Central and South America.

ARMY ROTC

The Army Reserve Officer's Training Corps at The University of North Carolina at Wilmington provides men and women who meet the physical and mental requirements the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Transfer and graduate students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

SUMMER SESSIONS

The Summer Sessions constitute an integral part of the University's academic year. Students may take advantage of several unique programs related to the marine environment and other interesting subject areas. A variety of courses is offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to removed deficiencies. During the summer sessions, undergraduate students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. In addition, public school teachers may wish to renew or change fields of certification or pursue a program of graduate studies in the School of Education.

Summer Sessions at UNCW offer students an opportunity to combine leisure with creative learning experiences.

Further information concerning the Summer Sessions may be obtained by contacting the Director of Summer School.

OFFICE OF SPECIAL PROGRAMS

Through the Office of Special Programs, the University serves the surrounding community by offering a variety of educational and service-oriented activities which can be academic or non-academic in nature. These include continuing education, university extension and summer session programs.

CONTINUING EDUCATION

The University responds to the continuing education needs of the community by developing programs cooperatively with business, industry, educational institutions, service organizations, social service agencies, government agencies, civic groups, and individuals. Participation in these non-academic programs is based on the needs of an individual or group and the appropriateness of he activity.

PROGRAMS AND SERVICES FOR BUSINESS AND INDUSTRY

The Office of Special Programs offers a variety of short courses, conferences and workshops specifically designed for business and industry. University faculty and staff or individuals from other universities or organizations conduct programs in communications, management, planning, supervision, small business administration, computer programming or other similar topics. Annually, faculty from the Cameron School of Business Administration conduct a series of professional development courses in business. Activities are offered to the general public or can be custom designed for a specific business or industry.

PROGRAMS AND SERVICES TO PUBLIC ORGANIZATIONS

Because the University is vitally interested in assisting public organizations (municipal, county, state, and federal with their training and educational programs the Office of Special Programs offers a variety of continuing education activities, including credit courses, noncredit short courses, workshops, conferences, and seminars.

PROGRAMS AND SERVICES TO SCHOOL SYSTEM

The University also assists school systems with programs for the professional improvement of teachers. Courses can be designed to meet certification and renewal requirements and to provide general training for teachers and administrators. Courses can also be designed to meet the needs of a specific school or system.

PROGRAMS AND SERVICES TO THE GENERAL PUBLIC

A full range of community interest programs designed to raise the level of awareness of issues affecting daily life and to contribute to personal enrichment is offered by the Office of Special Programs. These activities include speakers, discussion groups, short courses, workshops and conferences with topics ranging from local problems to international affairs. One example is the "Great Decisions" program offered during February and March in association with the American Foreign Policy Association. This discussion group activity is non-credit in nature, focusing on eight topics of international interests to the general public.

UNIVERSITY EXTENSION PROGRAM

In an effort to reach beyond the campus boundaries the University offers, through the Office of Special Programs, a number of freshmen and sophomore level courses at James Sprunt Technical College in Kenansville, Bladen Technical College in Dublin, and Sampson Technical College in Clinton, North Carolina.

The technical colleges are responsible for recruiting and enrolling students who must be high school graduates or the equivalent. Students enrolled in the program who desire to become degree candidates on the University campus must meet regular admission requirements for freshmen or transfer students.

An additional dimension of the Extension Program includes undergraduate and graduate instruction in the field of education at off-campus sites. Utilizing faculty from the School of Education, these courses are offered to meet the staff development and/or graduate education requirements of local teachers.

All requests for transcripts for University extension courses should be forwarded to the Registrar of The University of North Carolina at Wilmington.

Further information concerning the Extension Program may be obtained by contacting the Director of Special Programs.

GRADUATE STUDIES

GRADUATE STUDIES

The University of North Carolina at Wilmington offers programs of study leading to the Master of Business Administration degree, the Master of Education degree, and the Master of Science degree in Marine Biology.

The Master of Business Administration program is an advanced degree program designed to enhance the development of the professional manager. The program consists of three parts: a common body of knowledge essential for managers of business firms and other organizations; a series of courses in various functional areas of business that enable the development of expertise in general management; and electives consistent with individual career objectives.

The Master of Education degree is granted in Elementary Education, in Reading Education, in Special Education, and in Educational Administration and Supervision. The program in Elementary Education offers specialties in (a) Early Childhood Education and (b) Intermediate Education, and (c) Middle School Education. The Program in Reading Education prepares Reading Education Specialists (K-12). The program in Special Education is cross categorical. The program in Educational Administration and Supervision offers specialties in (a) Administration leading to certification for the professional role of principal, and (b) Supervision leading to certification for the professional role of curriculum-instruction specialist.

The Master of Science degree program includes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each track is designed to provide the necessary latitude to allow the student, in consultation with a faculty committee, to develop an appropriate program of study.

These programs provide capable students an opportunity to pursue advanced study, training, and research designed to enhance their academic and professional development.

ADMISSIONS: MASTER'S DEGREE PROGRAM

General Admissions Requirements

For admission to a graduate degree program at The University of North Carolina at Wilmington, the applicant must (1) hold a bachelor's degree from an accredited college or university in this country or its equivalent in a foreign institution based on a four-year program; (2) have a strong overall academic record with a B average or better in the basic courses prerequisite to the area of proposed graduate study; and (3) present satisfactory scores on the specified examination. (Test scores more than five years old at the time of application will not be considered.) In addition, students who are taking or have taken graduate work elsewhere must be in good standing at that institution to be eligible to take graduate work at UNCW.

Applications for admission to a graduate degree program should be filed in the Graduate Office at least sixty (60) days in advance of the term in which admission is sought. If admitted applicants do not register for the term specified in this application, their admission will be subject to review at a later date. In some cases, students who are not seeking a graduate degree may be permitted to take graduate courses as a Special Graduate enrollee. Such permission to take graduate courses as a Special Graduate Student does not constitute admission to a graduate degree program. A student who leaves the University and does not register for at least one semester must apply for readmission to graduate studies.

Each student admitted to a graduate degree program must have a completed medical report form on file at UNCW before initial registration may be effective. In addition, an immunization record for each newly admitted UNCW graduate student, regardless of status, is required by law to be on file at UNCW prior to enrollment.

Graduate students are subject to the same University policies and regulations as undergraduates unless otherwise stated.

Requirements for Admission to Master of Business Administration Program

Applicants seeking admission to the graduate program in Business Administration are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
(3) official scores on the Graduate Management Admission Test (GMAT)
(4) three recommendations including one from an employer or supervisor who can comment on the applicant's work experience and potential for successful completion of a master's program

A strong overall academic average, a total score of 1,000 or more based on the formula: 200 times the upper division grade point average (4.0 systems) plus the GMAT score, and at least one year of appropriate full-time work experience are minimum requirements for graduate admission. However, admission decisions are based upon several factors; and if other indicators of success are evident, individuals who fall below the established criterion in one of the areas may be considered for admission.

Requirements for Admission to Master of Education Programs

Applicants seeking admission to a graduate program in Education are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
(3) official scores on the Miller Analogies Test
(4) three recommendations by individuals in relevant professional fields

A score of 40 on the Miller Analogies Test and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors, and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

In addition to the general requirements, applicants to the program in Elementary Education are required to hold, or be qualified to hold, North Carolina "A" teacher certification in Early Childhood Education, Intermediate Education, or Middle School Education. Applicants to the program in Special Education are required to hold or be qualified to hold North Carolina Class "A" special education teacher certification in at least one are of exceptionality and are required to have taken at least one course in mental retardation, one course in learning disabilities, and one course in emotional disturbance. Applicants to the Educational Administration and Supervision and Reading programs are required to hold, or be qualified to hold North Carolina Class "A" elementary, middle school or secondary teacher certification.

Under exceptional circumstances, individuals who do not hold the specified teaching credential may be admitted. Such exceptions may be made in cases of otherwise qualified applicants who are engaged in relevant professional roles not requiring teacher certification and who may profit professionally from the type of advanced study offered at this institution. Examples of applicants for whom exception is appropriate may include community college administrators and teachers. In such instances, the programs may be modified appropriately. Individuals admitted under such exceptions are not qualified, however, upon completion of the graduate program for the institution's recommendation for North Caorlina Board of Education instructional or administrative certification.

Students who seek professional improvement but do not intend to pursue a degree may register for graduate courses through procedures established for Special Graduate Students.

Requirements for Admission to Master of Science Programs

Applicants seeking administration to a graduate program in Marine Biology are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
*(3) official scores on the Graduate Record Examination, verbal and quantitative
(4) three recommendations by individuals in professionally relevant fields

A score of 1000 on the Graduate Record Examination (verbal and quantitative) and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors; and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

Although interviews are most helpful to both the faculty and to the graduate applicant, they are not required.

*Students seeking admission to the program in Marine Biology are also required to take the Graduate Record Advanced Test in biology.

Application forms and other admissions information may be obtained by writing to the Office of Graduate Studies. The University of North Carolina at Wilmington, 601 South College Road, Wilmington, North Carolina 28403-3297.

EXPENSES

The Board of Governors of The University reserves the right to change the charges for tuition, fees and the room and board rate at any time without prior notice.

Tuition and Fees (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full Time Charges Per Semester:

	In-State Students	Out-of-State Students
Tuition	$205.00	$1,628.00
Fees	198.50	198.50
Total	$403.50	$1,826.50

Other Fees:

Application Fee (to accompany application, nonrefundable)	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Graduate students registering for nine or more semester hours will be charged at the full-time rate. Students scheduling fewer than nine semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
0-Thesis only	$123.50	$ 286.50
1-2	$ 80.50	$ 436.50
3-5	$132.50	$ 843.50
6-8	$196.00	$1,263.00

The privileges of students taking fewer than nine hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $15.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

*See information on residency at the end of this section.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full prior to preregistration or registration for a new term.

On-Campus Living

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,105.00
Room and Board:	21 meals	$1,130.00

Three meal plans are available for apartment students. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,192.50
Apartment and Board:	15 meals	$1,217.50
Apartment and Board:	21 meals	$1,242.50

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

An advance room reservation deposit of $100.00 to be applied to the room and board account must be remitted by each applicant along with the complete application for room and board.

Those interested in obtaining information should contact:

Housing Office
The University of North Carolina at Wilmington
601 S. College Rd.
Wilmington, North Carolina 28403-3297

Summer Session

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

Refunds — Tuition

A student who officially withdraws from the University on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid. Students withdrawing from the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to *complete* withdrawals from UNCW. If you simply reduce your course load after the Drop/Add period, you will receive NO refund reduction of fees whatsoever.

Refunds — Financial Aid

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

Refunds — Housing

Housing agreements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except as provided for below:

1. New Students (Incoming Freshmen and Transfers) - If a new student, after remitting the deposit and being accepted to on-campus housing, decides not to live on campus and gives notice of this decision **in writing** by May 17, 1986 in the case of application for the fall semester, or at least one month prior to the semester in the case of application for the spring semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for refund received after May 17, 1986 will be denied and the $100.00 deposit forfeited. This condition also applies to students remitting the deposit and accepted to on-campus housing after May 17, 1986.
2. Returning Students (Students currently or previously enrolled at UNCW) - The $100.00 housing deposit is **non-refundable** to returning students after being accepted to on-campus housing. (Exceptions being marriage, transferring to another institution or withdrawal from UNCW - less $25.00 administrative fee). Notification must be received in the Housing Office, **in writing,** by May 17, 1986.
3. Room rent for either semester will not be refunded once a student officially moves into a residence hall/apartment.
4. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

Residence Status for Tuition Payment

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the institution of that statement to be conditioned by the statement beginning on page 30 of this catalogue.

The initial classification of graduate students as in-state or out-of-state residents for tuition purposes is made by the Office of the Director of Graduate Studies. Appeals for in-state status may be made to the campus appeals body, Out-of State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes."

Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available in the undergraduate Admissions Office and in the Student Affairs Office for inspection upon request.

FINANCIAL AID FOR THE GRADUATE STUDENT

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general Minority Presence Grant Program, black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

ASSISTANTSHIPS

Teaching and Research Assistantships are available on a limited basis through the Department of Biological Sciences. The admission application process determines candidates.

Graduate Assistantships are available on a limited basis through the Cameron School of Business Administration and the School of Education. For information contact the Dean of the appropriate school.

LOANS/COLLEGE WORK STUDY PROGRAM

Students who are enrolled at least half-time in the Graduate Studies Program at UNCW may apply for the following types of financial aid:

The North Carolina Insured Loan Program provides students with long-term, low-interest loans. Under this program, the student borrows from College Foundation, Inc., and repays the loan after completion of a graduate degree. The repayment period begins six months after graduation, and the borrower may take up to ten years to repay the loan. The interest is eight percent and begins to accrue six months after completion of degree or withdrawal from school. Application for the N.C. Insured Loan should be made directly to College Foundation, Inc., 1307 Glenwood Avenue, Raleigh, N.C. 27605. The maximum amount that a student may borrow under the program is $5,000 per academic year. To be eligible for this program, a student must be enrolled for at least half-time and be a North Carolina resident and demonstrate need.

The Federally Insured Student Loan Program provides assistance to students who are non-residents who may be eligible to borrow long-term, low-interest loans through approved lenders in their home states. This program is essentially the same as the N.C. Insured Loan Program. Addresses for these state agencies may be obtained from the Financial Aid Office.

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least half-time and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

For additional information, contact the Financial Aid Office.

VA Educational Benefits

Veterans and dependents are urged to utilize their VA Educational Benefits while enrolled in the graduate programs at the University. The available benefits are determined by the amount of eligibility time a veteran or dependent has remaining and the delimiting date that is involved.

For further assistance, contact the Veterans Coordinator in the Student Financial Aid Office.

ACADEMIC REGULATIONS AND PROCEDURES

Registration

No minimum number of hours is required for official registration; however, specified maximum course loads must not be exceeded. Students in a graduate degree program are permitted to register for no more than 15 hours in any one semester. Course loads for students who have service appointments will be determined on an individual basis. A student enrolled in the summer may not register for, and will not receive credit for, more than six hours a term.

Course Credit

Courses Eligible for Degree Credit

For courses offered at this institution, graduate course credit may be received only for courses taken after a student has been formally admitted to graduate studies, except as described in the paragraphs below.

Final semester seniors at this institution with at least a B average in the major who need fewer than 15 hours to complete requirements for the bachelor's degree may take one or two graduate courses for the purpose of later receiving graduate credit, provided that they are not enrolled for more than a total of 15 hours. To do this the student must (1) obtain permission in advance from his or her department chairman or School dean as appropriate, and (2) present it to the Director of Graduate Studies for approval. Graduate courses taken under this provision may not be used in fulfilling baccalaureate degree requirements. Undergraduate students at other institutions who have taken graduate course work under similar arrangements may not transfer such work here.

Graduate courses taken at this institution before formal admission to graduate studies will meet course requirements for a graduate degree only if offered and approved as transfer credit, and no more than six credit hours of such courses are eligible for transfer.

Degree related extension courses offered at this institution may be applied toward a graduate degree as follows: (a) with the approval of the appropriate Dean, a non-degree student may apply for a maximum of six hours of relevant courses as transfer credits at the time of admission to a program, (b) with the prior approval of the appropriate Dean, a student who is already admitted to a degree program may apply up to six hours of relevant courses toward the residence requirement. Request for application of an additional six hours toward the residence requirement may be submitted to the Graduate Administrative Board.

Transfer of Course Credit

A maximum of six semester hours of graduate credit may be transferred from another accredited institution, or for courses taken at this institution before admission to graduate studies, in partial fulfillment of the total hours required for the master's degree. Correspondence courses will not be accepted for transfer credit. When special circumstances warrant, students may petition the Graduate Administrative Board for transfer of more than six semester hours. Each such petition must be accompanied by a statement of endorsement from the appropriate Dean.

Grades earned on transferred work must be equivalent to B or better. Transferred credit will be accepted by the Director of Graduate Studies only upon recommendation of the Dean of the School or College in which the student is enrolled. The graduate office must have an official transcript showing the satisfactory completion of courses offered for transfer credit. The courses must have been taken within the allowed time limits for the degree. Transfer of credit does not reduce minimum rresidence requirements for a master's degree.

A student in graduate studies who wishes to take one or more courses elsewhere for graduate degree credit must obtain prior approval from the appropriate Dean and Director of Graduate Studies.

Courses Approved for Undergraduate Credit Only

Courses approved for undergraduate credit only may not become a part of the graduate degree program and do not carry either course or residence credit.

A graduate student who is required to take undergraduate courses, whether as a requisite for admission or for other reasons, or who takes such courses in the field of his or her graduate major, must make grades of at least B on all such courses in order to maintain eligibility as a graduate student.

A graduate student voluntarily electing to register for undergraduate courses may make any grade above F without jeopardy to his or her graduate standing.

Adding, Dropping, Withdrawing

Courses may be added only in the official Drop/Add period, which is noted in the Calendar of Events. To add a course, the student must present to the Director of Graduate Studies a Schedule Revision Card signed by his or her advisor and the course instructor.

Every course for which a student is registered must be either completed or formally dropped; however, no course may be dropped in the last five weeks in a semester or during the last week of summer session.

To drop a course, the student must obtain a Schedule Revision Card from his or her advisor. If the advisor approves, the student must obtain the instructor's signature and indication of whether the student is passing or failing the course. The Schedule Revision Card must then be presented to the Director of Graduate Studies for his approval.

If, at the time a student drops a course, performance in that course is judged by the instructor to be passing, a grade of WP is assigned on the student's permanent record; however, if the student is judged by the instructor to be failing, a grade of F is assigned on the student's permanent record, and the student becomes ineligible for further registration.

A student may not use a Schedule Revision Card to drop his or her only course but must officially withdraw from the University. To withdraw officially from the University, a student must come to the office of the Director of Graduate Studies and complete a permit to withdraw.

Graduate Grading

Grades for graduate students enrolled in graduate courses must be reported as one of the following:

H – clear excellence
P – entirely satisfactory
L – low passing
F – fail
S – satisfactory progress on thesis
I – work incomplete
WP – withdraw passing

A student receiving grades of L on any three courses or on 12 semester hours (whichever comes first) or any grade of F is ineligible to continue in graduate studies.

When special circumstances warrant, students declared ineligible under the preceding paragraph may be reinstated upon petition by the student to the Graduate Administrative Board. Each such petition must be accompanied by a statement of endorsement or nonendorsement from the Dean of the School or College in which the student is enrolled. Any reinstatement is provisional in that an additional grade below P will again result in the student's ineligibility.

An incomplete grade may be given if the course instructor determines that exceptional circumstances warrant extending the time for the student to complete the course work. The instructor may set the maximum allowable period for completion of the course work, but in no case will extension exceed one year. If the time allowed is to be less than one year, this information should be transmitted in writing to the student, with a copy to the Director of Graduate Studies. If within 12 months a grade change

request has not been submitted by the instructor, the incomplete automatically becomes an F.

Grades of H, P, L, S, F, and WP are permanent grades and can be changed only by the Director of Graduate Studies in cases of arithmetical or clerical error or as a result of protest of grade.

Procedure for Protest of Grade

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. Such appeal must be made not later than the last day of the next regular semester.

The student shall present the appeal in writing to the Dean of the College or School within which the protested grade was awarded. By conferring with the student and the instructor, the Dean will seek resolution by mutual agreement. Failing such resolution, the Dean will transmit the written appeal to the Director of Graduate Studies. The Director will convene the Grade Appeals Committee. The Grade Appeals Committee will consist of the Director as chairman and five members of the graduate faculty appointed by the Director. If the Committee affirms the instructor's decision, the Director will notify in writing the faculty member, the student, and the appropriate Dean. If the Committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

Residence Credit Computation

Conversion of semester hours to residence credit is on the following basis:

1. Nine or more semester hours in a given semester earn a full semester of residence.
2. Six to eight semester hours earn one-half semester of residence.
3. Three to five semester hours earn one-fourth semester of residence.
4. Credits earned in any summer session count towards residence credit on the same basis as courses taken in regular semesters.

Master's Degree Examination

Every master's candidate must pass either a written comprehensive examination covering his or her field of study, or an oral comprehensive examination covering all course work required for the degree, or both, according to the decision of his orr her department or School. Neither examination may be taken until the course work is completed or until the final courses are in progress and must be scheduled in conformance with the deadline established by the Dean of the School or College in which the student is enrolled. If a thesis is required, a final oral defense of the thesis may be required in addition to the comprehensive examination, or as part of the oral examination.

A committee of at least three members of the graduate faculty (at least two of whom must be in the major program) evaluates the student's work for the master's degree, approves any thesis required, and administers any oral examination that may be given. If the student has a minor field of study, at least one member of the student's committee must represent the program of the minor.

A master's candidate who fails either a comprehensive written or oral examination may not take the examination a second time until at least three months have elapsed. No student may take an examination a third time without approval of the Graduate Administrative Board. A student passes an examination only on approval by at least two-thirds of the members of the examining committee. The vote of the examining committee is considered to be final.

Registration for Thesis

Every student required to write a master's thesis must register for a minimum of three hours of thesis credit. A maximum of six credit hours for the thesis may be used toward course requirements for the master's degree. During each term that a student is working on a thesis, he or she should register for as many hours as are academically appropriate, except that, if the required hours of thesis credit have been taken, the student may register for zero credit hours so long as this is the only course for which he or she is registered.

Any student engaged in thesis research and/or writing that involves the use of University faculty or facilities must be registered during the semester or summer session in which he or she is using faculty time or facilities, whether the student is in residence or not. This registration may be for zero credit hours if the student had registered previously for the required number of semester hours of thesis credit. Provided that no use of University faculty and/or facilities is required, a student need not be registered in the semester in which the degree is to be awarded.

Foreign Language Requirement

Foreign language requirements differ from one graduate degree program to another. At an early stage, a graduate student should consult his or her graduate program advisor concerning what foreign language, if any, will be required. The requirement for a student in a given program must be one of the options approved for that program by the Graduate Administrative Board.

Each department or curriculum shall determine when a graduate student must fulfill a foreign language requirement, provided that such requirement be satisfied before a student is admitted to candidacy. At the time a student requests admission to candidacy, his or her Dean will be asked to certify on the application of candidacy that such requirement has been met.

Application for Admission to Candidacy and for the Degree

A student in a master's degree program applies for admission to candidacy at the time of application for the degree. To be eligible for graduation each student must apply for a specific graduation on or before the deadline shown in the Calendar of Events.

If a student has already applied for candidacy and for the degree but fails to meet a deadline for a particular graduation, he or she must reapply for the degree, specifying a new graduation date.

Degree Time Limits

A graduate student has five calendar years from the date of first registration in the graduate program to complete the master's degree. Courses transferred from other graduate schools for application toward degree requirements must have been taken within the specified time limits for that degree.

When extenuating circumstances warrant, an extension of the degree time limit may be granted a student upon his or her petition to the Director of Graduate Studies. At the same time such a petition is filed, the student should request the Dean of the School or College in which he or she is enrolled to forward to the Graduate Administrative Board a recommendation regarding the extension.

MASTER OF BUSINESS ADMINISTRATION

The University of North Carolina at Wilmington offers a program of study leading to a Master of Business Administration degree for any qualified holder of a bachelor's degree from an accredited college or university regardless of undergraduate field of

study. The program's objective is the development of the broadly educated professional manager.

Degree Requirements

1. Fifty-four semester credit hours of approved graduate credit must be satisfactorily completed for the degree. This number of credit hours may be reduced for students who qualify for and are granted certain course waivers. Petitions for waiver are submitted to the Dean of the Cameron School of Business Administration upon acceptance for admission into the program. Despite the number of waivers granted, a minimum of 42 semester hours of graduate study must be completed. Up to six hours of graduate study may be accepted as transfer from an accredited college or university. However, the last 36 hours of graduate study must be completed at The University of North Carolina at Wilmington.
2. The student must satisfy a minimal mathematics requirement in calculus. This requirement may be satisfied by completing Mathematics 151, its equivalent, or by passing the Advanced Placement Test (AB) in calculus.
3. The student must successfully complete a qualifying examination consisting of a oral comprehensive examination.
4. Each student must complete the approved course of study within five years of the date of first registration for graduate study.

Course Requirements for the Master of Business Administration Degree

Students with undergraduate or graduate work in businessadministration may have the program of study reduced throughwaivers for certain courses. Students with no prior work inbusiness administration will be reuired to take the followingprogram.

A. Common Body of Knowledge (24 semester hours)

The following courses comprise the common body of knowledge essential to a basic understanding of modern business and managerial practice. These courses must be completed by each student unless evidence of substantial academic work in such courses at the undergraduate or graduate level is presented. Requirements may be waived on a course-by-course basis by the MBA Admissions Committee subject to approval of the Dean of the Cameron School of Business Administration.

ACG 501	Financial Accounting (3)
ECN 520	Economic Analysis I (3)
BUS 503	Quantitative Methods (3)
BUS 508	Management Information Systems (3)
BUS 510	Legal Environment and Business Regulation (3)
BUS 550	Management of Organizations (3)
FIN 535	Managerial Finance (3)
MKT 545	Marketing Management (3)

B. Professional Competence and Integrative Applications (24 semester hours)

In addition to the Common Body of Knowledge, the following courses develop depth and breadth of knowledge and provide analytical skills for practical application. All students will be expected to complete these courses unless *extensive* evidence of prior study in such courses at the undergraduate or graduate level is presented. Although waiver of courses in this group is rare, requirements may be waived on a course-by-course basis by the MBA Advisory Committee subject to the approval of the Dean of the Cameron School of Business Administration. NO WAIVERS OR TRANSFER CREDIT WILL BE GRANTED FOR BUSINESS 555, BUSINESS 565, AND BUSINESS 595 UNDER ANY CONDITIONS.

ACG 502	Managerial Accounting (3)
ECN 521	Economic Analysis II (3)
BUS 555	Practice of Management (3)
BUS 557	Production/Operations Management (3)
BUS 565	Current Issues in Business (3)
BUS 595	Corporate Policy and Strategy (3)
FIN 536	Financial Policy (3)
MKT 546	Strategic Marketing (3)

C. Electives (6 semester hours)

Candidates will strengthen their knowledge and sharpen their skills in particular areas by taking at least two courses from the five elective areas: Accountancy, Economics, Management, Marketing, and Finance.

GRADUATE PROGRAM IN BUSINESS ADMINISTRATION

Course Descriptions

ACCOUNTANCY

ACG 501. Financial Accounting (3) An intensive course in accounting principles with special emphasis on the concepts underlying income determination, preparation and interpretation of financial statements and the managerial uses of accounting information. Topics include transaction analysis, asset valuation and expense recognition, capital structure and tools of financial analysis.

ACG 502. Managerial Accounting (3) Prerequisite: Accounting 501. Interpretation and use of accounting information in the planning, coordination and controlling of business activities. Topics include cost behavior, manufacturing and distribution cost-volume-profit relationships; effects of taxation and price level changes on business decisions; budgeting and responsibility accounting. Case studies emphasized.

ACG 503. Advanced Managerial Accounting (3) Prerequisite: Accounting 502. An in-depth study of cost concepts appropriate for decision-making and of the budgetary procedures used in planning and control. Emphasis is placed on relating recent advances in the quantitative and behavioral sciences to the role of the contemporary managerial accountant. Case analysis is emphasized.

ACG 506. Current Issues in Financial Accounting (3) Prerequisite: Accounting 501. Advanced study of the principles and theory underlying the preparation of financial statements. Consideration is given to the problems related to pension plans, long-term leasing arrangements, refunding of bonds outstanding, allocation of income taxes, changing price levels, and other controversial issues. Utilizes text, authoritative statements, and articles from the current literature.

ACG 508. Taxation and Business Decisions (3) Prerequisite: Accounting 502. The accounting and managerial effects of taxation upon decisions, policies, and procedures in the planning, organization, and operation of a business enterprise. Areas covered include the taxing process; taxation of individuals, corporations and fiduciaries; investment incentives; capital gains and losses; tax shelters; and tax planning. Problems and case analysis are used.

ACG 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

BUSINESS MANAGEMENT

BUS 503. Quantitative Methods (3) Prerequisite: Completion of mathematics through calculus. Techniques for the analysis of business data. Topics include descriptive and inferential statistical methods, probability, decision theory, and linear programming.

BUS 504. Advanced Quantitative Methods (3) Prerequisite: Business 503. Quantitative techniques for the solution of business problems. Topics include mathematical programming, simulation, queueing theory, network theory, and game theory. Emphasizes the mathematical formulation and solution of problems using a computer.

BUS 507. Advanced Business Statistics (3) Prerequisite: Business 503. Advanced statistical applications used to support the business decision-making process. Topics include multiple linear regression, nonlinear regression, time series analysis, experimental design, decision theory, and non-parametric statistics.

BUS 508. Management Information Systems (3) A study of the process of analyzing, designing, and implementing computer based systems which have information as their product. Minicomputer and microcomputer projects provide opportunities for comparing concepts with actual systems. An introduction to the BASIC programming language and orientation on the VAX minicomputer system are integral parts of the course.

BUS 510. Legal Environment and Business Regulation (3) A study of the management process and how it is influenced by the constitutional, legislative, judicial, regulatory, administrative, and social forces exerted on the business and social environment.

BUS 550. Management of Organizations (3) A study of fundamental principles associated with managing organizations. Particular attention is directed to planning, organizing, staffing, directing, and controlling the organization's human and economic resources. Includes an examination of the historical development of organizations.

BUS 555. Practice of Management (3) Prerequisite: Business 510 and Business 550. Major problems and decision areas confronting middle and upper-level managers. Topics include long-range planning, management by objectives, project management, leadership style, and performance appraisal. Case analysis is used to foster application of current managerial techniques to the analysis, solution, and prevention of organizational problems.

BUS 556. Personnel and Labor Relations (3) Prerequisite: Business 550. A study of manpower planning, training and development, job analysis, employee evaluation, labor legislation, and the collective bargaining process. This course is designed to foster a managerial understanding of the management of human resources rather than a technical orientation.

BUS 557. Production/Operations Management (3) Prerequisite: Business 503 and Business 550. Techniques to aid the operations manager in making key decisions during the initial, online, and control stages of production. Topics include product and process design; facility size, location and layout; demand forecasting; production and work force planning; quality control; and facilities maintenance. Formulation of problems for solution by the computer is an integral part of the course.

BUS 558. Organizational Behavior (3) Prerequisite: Business 550. An examination of the persistent human problems in organizations including motivation, resistance to change, interpersonal and intergroup conflict, managing superior/subordinate relations. This course incorporates ideas from the behavioral sciences to provide a foundation for identifying and solving the human side of an organization's operations. Case studies are emphasized.

BUS 565. Current Issues in Business (1-1-1) Current and emerging issues which affect and are affected by business. Topics focus on three major categories: (1) International Business; (2) Communications and Technology; and (3) Business Trends and Developments. At least three (3) hours are required and each candidate must include at least one (1) hour in each of the above categories.

BUS 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

BUS 595. Corporate Policy and Strategy (3) Prerequisite: To be taken in the final year of the candidate's program of study. An integrative course focusing on factors considered by top-level executives in formulating both short-term and long-term corporate strategy. Particular attention is directed toward analysis of business trends, development of corporate strengths, and formulation of policies and plans. Involves extensive use of case analysis.

ECONOMICS

ECN 520. Economic Analysis I (3) Prerequisite: Completion of mathematics through calculus. Economic analysis of demand, cost, resource allocation, and decision making in alternative market structures. Additional topics include regulatory effects, pricing strategy, and business forecasting.

ECN 521. Economic Analysis II (3) Prerequisite: Economics 520 and Business 503. An examination of the economic environment in which businesses make decisions. Topics include monetary and fiscal policy as they affect the availability and cost of funds and the effect of government regulation and tax policy on firm investment decisions. Particular attention will be paid to the factors affecting current and future inflation, unemployment, and exchange rates.

ECN 546. International Trade and Finance (3) Prerequisite: Economics 521 and Finance 535. A study of the principles of underlying world trade, exchange rate adjustments, balance of payments analysis, international financial markets, direct foreign investment, the international monetary system and the new international economic order. Discusses U.S. commercial policy, transnational corporations, international joint ventures, economic integration, preferential treatment and world-wide trading practices.

ECN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

FINANCE

FIN 535. Managerial Finance (3) Prerequisite: Accounting 501 and Economics 520. Financial decision-making in the modern business organization. Topics include the acquisition and use of funds, capital budgeting, cost of capital, capital asset pricing, portfolio analysis and financial statement analysis. Case studies emphasized.

FIN 536. Financial Policy (3) Prerequisite: Finance 535. Conceptual foundations for a theory of financial management, the structure of major areas of financial management and the theoretical content and validity of formalized techniques for improving decision making in the areas of capital budgeting, capital structure, cost of capital, dividend policy and mergers. Case studies will be used to supplement the conceptual foundations. Emphasis will be on the policy decisions and how they affect the valuation of the firm.

FIN 537. Financial Institutions and Markets (3) Prerequisite: Economics 521. Financial institutions as suppliers of funds to the money and capital markets. Comparative financial policies and portfolio considerations of instutions in the context of their changing market environments. The impact of the economic and regulatory climate on portfolio adjustments will also be examined. Cases will be used extensively.

FIN 538. Investments and Portfolio Analysis (3) Prerequisite: Finance 535. Analysis of financial assets as appropriate investment alternatives. Analysis and evaluation of securities and portfolio management. Securities market information and theories of security selection will be examined.

FIN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MARKETING

MKT 545. Marketing Management (3) An examination of the major factors to be considered in the analysis, development, and control of marketing programs. Particular attention is directed to decisions concerning product service offering, price strategy, promotional methods, and the channels of distribution. Emphasis is placed on the role that marketing plays in the overall operation of the firm.

MKT 546. Strategic Marketing (3) Prerequisite: Marketing 545. Major factors considered are setting marketing objectives, identifying market opportunities, selecting target markets, developing new products, formulating integrated marketing strategies, and solving marketing problems. Case analysis is used extensively to foster the application of marketing models and techniques to improve organizational performance.

MKT 548. Promotional Management (3) Prerequisite: Marketing 545. Theories and practices of advertising, sales management, and sales promotion as they relate to the total marketing effort. Attention is directed to sales forecasting, media

analysis, and the criteria for evaluating the results of the integrated marketing program. Case study is emphasized.

MKT 549. Marketing Research and Analysis (3) Prerequisite: Business 503 and Marketing 545. An examination of methods of gathering, processing, and analyzing information from the marketplace. Topics covered include problem identification, research design, primary and secondary sources of data, methods of data collection, scaling methods, and sampling techniques. Particular attention is directed to data generation methods and improving marketing decision-making.

MKT 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MASTER OF EDUCATION

The University of North Carolina at Wilmington offers four master's degree programs in professional education: (1) a Master of Education program in Elementary Education, (2) a Master of Education program in Reading Education, (3) a Master of Education program in Special Education, and (4) a Master of Education program in Educational Administration and Supervision with tracks in Educational Administration and Supervision. Program requirements are outlined below.

Elementary Education

The program leading to the Master of Education in Elementary Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Early Childhood Education (K-4), or Intermediate Education (4-6). Within the program, specialties are offered in Early Childhood Education or Intermediate Education. The 36-semester-hour program is comprised of 15 semester hours of conceptual and technical studies common to both specialties, 15 semester hours in the area of specialization, and six semester hours of electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Elementary Core
- EDN 500 Human Development and Learning (3)
- EDN 502 The School as a Social System (3)
- EDN 520 Instructional Development (3)
- EDN 523 Research in Education (3)
- EDN 530 Curriculum (3)

II. Early Childhood Education Track
- EDN 501 Language Development (3)
- EDN 531 Study of Teaching in Early Childhood Education (3)
- *EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
- EDN 542 The Teaching of Mathematics (3)
- Elect *one* of the following two:
- EDN 543 The Teaching of Social Studies (3) or
- EDN 544 Teaching of Science in the Elementary Schools (3)
- Electives Six (6) semester hours.

EDN 599, Thesis, may be selected (6 semester hours)

III. Intermediate Education Track

A. Common Requirements
*EDN 536 Teaching Reading in the Content Areas (3)
EDN 549 Middle School Education (3)

B. Concentration (Select "1" or "2" or "3" below)
1. Language Arts Concentration (Required of teachers with Class "A" Language Arts Concentration)
EDN 537 Linquistics for Teachers (3)
Six (6) semester hours elected from the following:
EDN 501 Language Development (3)
EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
EDN 538 Teaching of Writing (3)
EDN 539 Children's Literature (3)
EDN 540 Adolescent Literature (3)
EDN 547 Integrating Language Arts and Reading: Classroom Practice (3)

2. Math/Science Concentration
Select three (3) courses, 2 from 1 area—either math or science.
EDN 542 The Teaching of Mathematics (3)
EDN 544 Teaching of Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 548 Inquiry—The Method of Science (3)

3. Interdisciplinary Concentration
Select three (3) courses among the following in Elementary Instruction representing three (3) of the following content areas: Language Arts, Social Studies, Mathematics, Science.
EDN 501 Language Development (3)
EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching in Reading/Language Arts (3)
EDN 537 Linguistics for Teachers (3)
EDN 538 Teaching of Writing (3)
EDN 539 Children's Literature
EDN 540 Adolescent Literature (3)
EDN 542 The Teaching of Mathematics (3)
EDN 543 Teaching Social Studies in the Elementary School (3)
EDN 544 Teaching Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 547 Integrating Language Arts and Reading: Classroom Practice
EDN 548 Inquiry—The Method of Science (3)

C. Electives, Six (6) semester hours

EDN 599, Thesis, may be selected (6 semester hours)

*Field-based activites will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, EDN 520, Instructional Development. A comprehensive examination will be required.

Reading Education

The a program leading to the Master of Education in Reading Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification.

The 36-semester hour program is comprised of 12 semester hours of conceptual and technical studies, 18 semester hours in the area of specialization, and 6 semester hours of controlled electives.

Based upon the view of the professional as decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a reading specialization with related language arts options.

I. Reading Education Core
   - EDN 500, Human Development and Learning (3)
   - EDN 523, Research in Education
   - EDN 525, Tests, Measures and Measurement in Education (3)
   - EDN 530, Curriculum (3)

II. Concentration

   A. Group I (3 hours)
      - Select one: EDN 501, Language Development (3)
      - EDN 537, Linguistics for Teachers (3)

   B. Group 2 (15 hours)
      - EDN 505, The Reading Process (3)
      - EDN 534, Teaching Developmental Reading (3)
      - *EDN 535, Diagnosis and Teaching of Reading/Language Arts (3)
      - *EDN 536, Teaching Reading in the Content Areas (3)
      - *EDN 572, Practicum in Reading (3)

   C. Group 3 (6 selected hours)
      - EDN 538, The Teaching of Writing (3)
      - EDN 539, Children's Literature (3)
      - EDN 540, Adolescent Literature (3)
      - EDN 545, Black Literature and Resources for Teachers (3)
      - EDN 547, Integrating Language Arts and Reading: Classroom Practice (3)
      - EDN 559, Adult Literacy (3)
      - EDN 573, The Disabled Reader (3)
      - EDN 599, Thesis (6)

No language requirement is stipulated. Competence inappropriate inquiry procedures will be developed in the required course, Research in Education. A comprehensive examination will be required.

Applicants who do not hold North Carolina Class "A" teacher certification may be admitted on a provisional basis. In such cases, the specified undergraduate courses necessary for education certification will be required in addition to thegraduate courses.

*Field based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Special Education

The program leading to the Master of Education in Special Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Special Education in at least one area of exceptionality. The program is cross categorical in nature with emphasis in three areas of the mildly handicapped; mental retardation, learning disabilities, and emotionally handicapped. The 36-semester-hour program is comprised of 15 semester hours of conceptual and technical studies, 15 semester hours in the area of specialization, and six semester hours of controlled electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a concentration in special education.

I. Special Education Core
- EDN 501 Language Development (3)
- EDN 503 Exceptional Child Development (3)
- EDN 511 Organizational Behavior (3)
- EDN 523 Research in Education (3)
- EDN 530 Curriculum (3)

II. Concentration (21) hours)

A. Group 1 (15 hours)
- EDN 524 Consultation Strategies for Teachers of Exceptional Children (3)
- *EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
- *EDN 546 Diagnosis and Remediation in Mathematics (3)
- EDN 552 Program Development for the Mildly Handicapped (3)
- EDN 553 Classroom Management of Mildly Handicapped Children (3)

B. Group 2 (6 selected hours)
- EDN 504 Issues and Trends in Special Education (3)
- EDN 554 Educating Young Handicapped Children (3)
- EDN 555 The Mildly Handicapped Adolescent (3)
- EDN 591 Independent Study (3)
- EDN 595 Selected Topics in Education (related to exceptional children) (3)
- EDN 599 Thesis, may be selected (6)

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, Research in Education. A comprehensive examination will be required.

Students who are accepted provisionally (without at least one course in mental retardation, one course in learning disabilities, and one course in emotional disturbance) will need to take these courses before receiving the Master's degree.

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Educational Administration and Supervision

The Master of Education program in Educational Administration and Supervision provides educational leadership training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification. Within the program, specialties are offered leading to certification for the professional roles of principal or curriculum-

instruction specialist. The thirty-three semester-hour program is comprised of fifteen semester hours of conceptual and technical studies common to both specialties, twelve semester hours in the area of specialization, and six semester hours of electives.

Based upon the view of the professional as a decison-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Administration-Supervision Core
- EDN 502 School as a Social System (3)
- EDN 510 Organization and Control of American Education (3)
- EDN 511 Organizational Behavior (3)
- EDN 521 Decision-Making (3)
- EDN 523 Research in Education (3)

II. Administrative Track
- EDN 512 Legal Structures in Education (3)
- EDN 560 Personnel Administration (3)
- *EDN 561 Leadership Application (3)
- *EDN 570 Internship in Educational Administration (3)
- Electives, Six (6) semester hours

III. Supervision Track
- EDN 500 Human Development and Learning (3)
- *EDN 520 Instructional Development (3)
- *EDN 530 Curriculum (3)
- *EDN 571 Internship in Educational Supervision (3)
- Electives, Six (6) semester hours

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

No language requirement is stipulated. Competency in appropriate inquiry procedures will be developed through the required courses, EDN 521, Decision Making and EDN 523, Research in Education. A comprehensive examination will be required.

GRADUATE PROGRAM IN EDUCATION

Course Descriptions

EDN 500. Human Development and Learning (3) Designed to provide foundations for decision-making in teaching and education, this course will focus on patterns of physical and social development and on types of learning. Activities will include analysis, discussion, and application.

EDN 501. Language Development (3) Focus on the development of language and its relation to cognitive processes in young children. Theories of language learning and growth are explored in terms of patterns of evidence and in terms of implications for decision-making affecting school children. Concepts associated with language structure, functions, and processes are developed. A variety of language and language-education topics are explored.

EDN 502. The School as a Social System (3) Designed to develop competency in the analysis of social effects upon behavior within the school, this course will include an examination of role, value, power, and control systems within schools and how these systems relate to the changing functions of the family and work place. This information will be related to curent issues in the educational system, such as compulsory attendance, level of control, biculturalism, etc.

EDN 503. Exceptional Child Development (3) Prerequisite: Education 501. Designed to provide and understanding of the intellectual, emotional, and physical development of exceptional children. The interplay of biological and environmental factors that produce deviations in development is examined. Organized around a developmental approach to the study of exceptionality that suggests strategies for determining bases of exceptionality. Implications of development differences for the special educator will be stressed.

EDN 504. Issues and Trends in Special Education (3) Designed to focus on emerging directions related to the education of exceptional children. Relevant social, educational, bio-medical, developmental, psychological, and legal issues will be examined as well as implications for the schools.

EDN 510. Organization and Control of American Education (3) Designed to include a study of the roles of agencies involved in the governance of education, sources of finance and supportive services. Activities will include lectures, simulated exercises and an opportunity to participate in field activities.

EDN 511. Organizational Behavoir (3) Designed to develop competancy in the analysis of behavior in educational organizations, this course will include an examination of organizational theory with particular attention to the utility of social systems theory as a basis for effective educational leadership. A variety of activities including simulation and case studies will be used to demonstrate application in school settings.

EDN 512. Legal Structures in Education (3) Prerequisite: Education 510 or permission from department. Designed to (1) to develop knowledge of constitutional, statutory, and case law related to education and knowledge of state and local governmental structures and to develop skills and abilities in analysis and design of educational practices for consistency with established legal principles. The course content will include a study of the U.S. and N.C. constitutions, selected state and federal court cases, the N.C. system of educators, federal statutes related to education, and the structures of local governments. Activities will include lecture, discussion, library research, and group and individual analysis of existing school system practices and design of legally-consistent practices.

EDN 520. Instructional Development (3) Designed to provide students with the knowledge and skill required for designing and evaluating instructional plans, units, and educational programs. This course will include concern for such topics as types of learning, learning hierarchies, task analysis, educational goal and objective formulation, assessing learner entry skills, and evaluation. The course will include a variety of activities with a strong emphasis on group problem solving and individual projects. Students will undertake projects relevant to their in-school experience.

EDN 521. Decision-Making (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge, skills, and abilities in identification

and analysis of decision situations and decision alternatives, in procedures for choice, and in design and analysis of educational information system. Contents will include study of alternative decision-making models, procedures for choice, evaluation of educational programs, and educational information systems. The activities will include lecture, discussion, and simulated and real applications to decision situations in schools systems.

EDN 522. Educational Media (3) Designed to provide students with the theory and practical skills necessary for selecting, producing, and evaluating mediated materials in education. Students will learn to produce a variety of audio-visual materials including graphics, transparencies, slides, video- tapes. In addition, there will be considerable emphasis on photography including developing and printing. Instruction in operating and troubleshooting equipment will also be treated. The primary goal of this course is to develop confidence and competency in the media area. This course will include lectures and a workshop format. Students will produce a variety of mediated projects during the course.

EDN 523. Research in Education (3) Designed to develop research competencies required for interpretation and critique of research report and for design and conduct of research for educational decision-making. Contents will include measurement, problem identification and analysis, research design, selected statistical analysis procedures, data interpretation and reporting and research critique. Activities will include lecture, discussion, research critique, simulated and actual proposal development, simulated report development, and computer analysis of actual data.

EDN 524. Consultation Strategies for Teachers of Exceptional Children (3) Designed to develop communication skills relevant for the decision-making roles of the special education teacher. Emphasis on group dynamics, conflict resolution, generation of alternative solutions, interview procedures, parent conferences, team meetings, orientation of general educators, and mainstreaming handicapped children.

EDN 525. Tests, Measures, and Measurement in Education (3) Prerequisite: Education 201, Education 520, or an equivalent course. Design to develop a conceptual framework for obtaining and interpreting data about behavioral and psychological traits of persons which may be needed for a variety of purposes. Particular attention will be given to developing understanding of validity of measures for the intended purposes and for assessing the trait which is intended to be measured. Students will learn to make judgements of validity of testing systems and, to develop valid tests and testing systems. Mathematical and statistical tools for analyzing items, tests, and scores will be studied, and students will practice their use. Students will learn to use computers for test development, test administration, and to analyze records of performance on tests.

EDN 530. Curriculum (3) Develops a conceptual framework for understanding curriculum in relation to other aspects of educational systems. Students learn to evaluate curricula in terms of structural elements, underlying value orientations, and assumptions about subject matter and about learning. Introduction to issues of curriculum change, implementation, evaluation, development, and design.

EDN 531. Study of Teaching in Early Childhood Education (3) Prerequisites: Education 500, 501, 502, 520, or department approval. Designed to improve teaching

performance and to develop competencies in the critical analysis of teaching in the early grades, this course will include an in-depth study of teaching in the early grades by observation and participation using different interaction analysis formats for studying and analyzing teaching.

EDN 532. Comparative Studies in Early Childhood Education (3) Prerequsite: Education 502 or approval of department. Designed to provide information for comparing and contrasting preschools from an international perspective, this course will include an in-depth cross-cultural survey of early childhood education in selected countries. The history of philosophical thoughts, the political and socio-economic changes and research efforts from these selected countries of interest to American early childhood educators will be studied and discussed.

EDN 533. Early Childhood Education in Focus (3) Prerequisite: Education 500, 501, 502, or approved of department. Designed to develop the ability to look to current trends and issues in early childhood education. Objectively, this course will include critical analysis of present exemplary programs, practices, resources, and legislation related to early childhood education. The student will be involved in identifying unresolved issues in early childhood education and writing position papers about these issues.

EDN 535. Diagnosis and Teaching of Reading/Language Arts (3) Prerequisite: Education 501 and 530. Designed for the elementary and reading teacher, this course focuses on building the skills and understanding needed to become a diagnostic teacher. In addition to the review of skills sequences in reading/language arts, the student will study a variety of disgnostic material and techniques will strengthen knowledge about the skills in the selection of appropriate materials, techniques and methods in teaching. Development of informal tests as well as experiences in actual diagnosis will be required.

EDN 536. Teaching Reading in the Content Area (3) Designed for the middle grades teacher of math, science, social studies, and English, this course will identify those skills of reading needed in all content areas as well as those specific to each content area. Emphasis will be placed on the study of strategies useful in teaching reading in the content area classroom. Besides the study of appropraite commercial materials, students will be required to develop their own materials useful for teaching reading in a particular content area.

EDN 537. Linguistics for Teachers (3) A study of current American English and of the principles of scientific analysis of spoken and written language; emphasis on understanding that nature and structure of the language that students bring into the classroom.

EDN 538. The Teaching of Writing (3) Intensive review of principles of grammar, rhetoric and usage (approximately ½ of course), followed by projects using and evaluating actual samples (both expository and creative) from school-age writers; attention also to methods of instruction and to the range, usefulness and availability of classroom materials.

EDN 539. Children's Literature (3) Prerequisite: Education 500, 501, 502, 520, or approval from department. Designed to develop skills and understanding which would improve teachers' competencies in formulating sound literature programs, this course will include an in-depth study of the functions of children's literature

and the different criteria for evaluation of the various types of literature suitable for children at various developmental levels. Areas of influence that are producing change such as paperbacks, minorities in children's books, sexism and censorship will be discussed.

EDN 540. Adolescent Literature (3) A comprehensive study of literature appropriate for the middle grades, its value in the school curriculum and its importance in fulfilling intellectual, emotional, and cultural needs of young people. Evaluation and bibliography are emphasized; classroom techniques and the use of related material are covered. Projects related to instructional preparation and student activities are required.

EDN 542. The Teaching of Mathematics (3) Prerequisite: Education 500 and 530. Focus on materials and methods for teaching mathematics in grades K-9, with emphasis on the logical, psychological, and sociological foundations of mathematics education. A survey of curricula appropriate at the K-9 level. Library research in current topics related to the teaching of mathematics.

EDN 543. The Teaching of Social Studies (3) Prerequisite: Education 500, 501, 530. Special emphasis is given to the various techniques and methods to be used in the teaching of social studies. Teaching strategies including simulation, injury and value clarification will be explored through research, observation, demonstration, and, when applicable, field trips. Each student will prepare a major unit of study which will require both individual and group participation.

EDN 544. Teaching of Science in the Elementary School (3) To assure that science at the elementary school level is taught from a theoretical and conceptual base, content will include studying theories and concepts related to science taught at the elementary school level. Activities will include development of successful methods of teaching through the use of individual and group projects. Opportunities will be provided to field test methods proposed. Materials needed for a successful science program and sources from which these materials may be secured will be discussed.

EDN 545. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of material published for classroom use in the public schools and the authors who have made contributions to this field.

EDN 546. Diagnosis and Remediation in Mathematics (3) Prerequisite: Education 500, 530, and 542. The study and application of teaching mathematics in the diagnostic mode. Included will be a historical review of diagnostic procedures in mathematics, a survey of mathematics curriculum, an examination of the theoretical models of diagnosis and of materials useful to the classroom teacher or clinician. Intensive work with children experiencing difficulty in mathematics will be required.

EDN 548. Inquiry — The Method of Science (3) The course assumes initial level competency in the curriculum and methods of science. The course will focus on the conceptualization of and rationale for using the inquiry method of teaching science. Students will participate in activities taken from a variety of science curriculum programs for elementary through senior high school. The course will also provide students with an opportunity to acquire and practice the skills needed to utilize the inquiry method and to guide scientific investigations at K-

12 levels. Methodology and types of activities appropriate to the student's level of teaching will be selected.

EDN 549. Middle School Education (3) Prerequisite: Education 500 and 502. Education 530 recommended. Study of educational programs for upper elementary education (junior high, middle school, intermediate school). Review of learning, physical, and social characteristics of "transescents" and historical and current approaches to their education. Comparison and contrast of curriculum, instruction, administrative and organizational features of exemplary and typical intermediate, middle and junior high schools.

EDN 550. Nature and Needs of Exceptional Children (3) This course is designed to provide a comprehensive survey of the major categories of exceptional children. Emphasis will be on characteristics, etiology, educational procedures, and psycho-social implications. Activities will include lecture, discussion, and practical applications of concepts and strategies. This course is only open to elementary majors and administration/supervision majors.

EDN 552. Program Development for Mildly Handicapped (3) Prerequisite: Education 502 and 530. Designed to develop an understanding of how to develop and teach relevant curriculum to handicapped children through systematic instruction. Focus on characteristics and etiology, assessment, planning, implementaton of instructional plans, and selection and utilization of appropriate methods and materials for a wide range of curricular areas.

EDN 553. Classroom Management of Mildly Handicapped Children (3) Designed to develop knowledge and skills, necessary for planning and implementing various classroom management strategies. Focus on observation and measurement of behaviors, design of classroom management strategies, utilization of strategies in the special education and regular classroom environment.

EDN 554. Educating Young Handicapped Children (3) Overview of early childhood education for the handicapped. Trends toward early identification of handicapping conditions and appropriate intervention strategies will be examined. Methods for dealing with developmental delays in regular and special preschool settings will be studied. Working with parents and primary caretakers of young handicapped children will be emphasized.

EDN 555. The Mildly Handicapped Adolescent (3) Designed to provide a basis for understanding the educational needs of mildly handicapped adolescents. The following topics will be covered during the course: the impact of handicapping conditions on the developmental tasks of adolescence; strategies for the remediation of deficits in basic skills; the interrelationship of vocational intervention; the current status of educational programs for the mildly handicapped.

EDN 560. Personnel Administration (3) Prerequisite: Education 502, 510, 511, 521, or permission from department. Designed to develop knowledge, skills, and abilities in specification and analysis of roles and role performance, and in selection, supervision, and utilization of personnel resources. The contents will include educational roles, criteria for role performance, personnel selection criteria and procedures, personnel policies and practices, and labor relations. Activities will include lecture, discussion, analysis and design of simulated and actual personnel procedures, and a variety of simulated personnel related tasks.

EDN 561. Leadership Applications (3) Prerequisite: Education 502, 510, 511, 521, or permission from department. Designed to develop skills and abilities in analysis, initiation, establishment, and maintenance of specific educational procedures. The contents will include specific procedures for scheduling, office management, pupil control, co-curricular program design and management, curricular program design an management, communications, information systems, and budgeting. Activities will include lecture, discussion, visitation, simulated and actual applications, and selected practicum experiences.

EDN 562. Automation in Administrative and Instructional Practices (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge, skills, and abilities required for decision-making about automation of procedures and for design and implementation of automated procedures. The content will include a study of alternative procedures for automation, including computer applications and specific procedures for personnel accounting, scheduling, planning, instruction, and information management. Activities will include lecture, discussion, and a variety of simulated and real design, analysis, and production problems.

EDN 563. Educational Environments (3) Prerequisite: Education 502, 510, 511, or permission from department. Designed to develop knowledge, skills, and abilities in the analysis, design, and change of physical and social environments in education. Contents will include design, organization, control, and effects of physical and social climates of schools and classrooms. Activities will include lecture, discussion, library research, and a variety of group and individual simulated and real design and analysis problems.

EDN 564. Politics and Policy-Making in Education (3) Designed to study the theories, processes, functions, limits, alternatives, goals, and consequences of policy-making as the primary objective of politics in education; evaluation and analysis of policy-making at the local, state and federal levels of education; nature and dynamics of policy-making by local and state school boards, state legislatures and the federal government.

EDN 570. Internship in Educational Administration (3) Designed to provide experience related to major aspects of the role of principal. Observation will be made of principals and assistant principals and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the principal's role in task areas such as staff development, supervision and evaluation, community relations and student development. Additional topics of investigation will include such adminstrative task areas as budget development, budget allocation, fiscal management, reporting and instructional scheduling. Students with experience in the role of principal or assistant principal may request waiver of this course requirement.

EDN 571. Internship in Educational Supervision (3) Designed to provide experiences related to major aspects of the role of supervisor. Observations will be made of supervisors and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the supervisor's role in task areas such as staff development, teacher relations, principle relations, and relations with outside consultants. Additional topics of investigation will include such supervisory

task areas as program planning, curriculum review, budget development, budget allocations, fiscal management, and reporting. Students with experience in the role of supervisor may request waiver of this course requirement.

EDN 591. Independent Study (3) Prerequisite: Fifteen semester hours of graduate credit and permission of instructor. Intensive study of topic in the student's area of specialization.

EDN 595. Special Topics in Education (1-4) Seminars of varying duration andd credit may be arranged for the study of special topics relevan to student needs not served by established graduate courses. Seminars of this nature may be offered only upon approval of the Director of Graduate Studies. A maximum of six semester credit hours may be counted toward degree requirements.

EDN 599. Thesis in Education (1-6) Prerequisite: Education 523, at least 18 additional hours toward master's degree, and permission of instructor. Intensive study of topic selected by student and approval by thesis committee. Includes definition of problem, review of related literature, application of appropriate methodology, and interpretation of results and conclusions. Oral presentation and defense of thesis required.

MASTER OF SCIENCE IN MARINE BIOLOGY

The University of North Carolina at Wilmington offers a program of study leading to a Master of Science degree in Marine Biology. The program is designed either (1) to prepare students for further graduate work leading to a Ph.D. degree elsewhere; (2) to prepare students as professional biologists or as managers of coastal and marine resources, trained to deal with contemporary problems in the environment; or (3) to upgrade the effectiveness of classroom instruction by public school teachers. The curriculum of the program allows students to elect one of three tracks: Marine Biology, Biological Oceanography, or Coastal Biology. Within each track, a student and his/her faculty committee have the necessary latitude to develop a plan of study which will meet the particular needs of the individual.

Degree Requirements

1. Programs leading to the Master of Science degree require a minimum of thirty semester hours of graduate study. A maximum of 6 semester hours of credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to "B" or better. A minimum of 24 semester hours of graduate study must be completed in residence.

2. The student must demonstrate competency in a foreign language: French, German, Spanish, or Russian. A computer language, i.e. PL/1, FORTRAN, or BASIC, may be substituted for the foreign language requirement upon the commitee's approval.

3. The student must successfully complete a qualifying examination consisting of two parts: a written comprehensive examination based upon prior course work, and a comprehensive oral examination administered by the committee within two weeks after the written examination.

4. Each student will present a thesis, based on original research, acceptable to the committee, prior to graduation.

5. Each student must complete an approved course of study within five years of the date of first registration for graduate study.

Requirements for the Marine Biology track:

A minimum of six hours from the following:
MBY 560 Estuarine Biology (3)
MBY 562 Coastal Ecosystems (3)

MBY 564 Biological Oceangraphy (3)
MBY 569 Advanced Oceanography (3)
and:
MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 599 Thesis (3-6)

A minimum of 15 hours of electives of which at least 12 hours must be in biology courses; at least 3 hours must be chosen from each of the following categories: physiology, anatomy-morphology, developmental biology. No more than 3 credits of MBY 591 (Directed Independent Study) may be used.

Requirements for the Biological Oceanography track:

MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 564 Biological Oceanography (3)
MBY 569 Advanced Oceanography (3)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 596 Seminar at Sea (1)
MBY 599 Thesis (3-6)

A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Independent Study) may be used.

Requirements for the Coastal Biology track:

MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 560 Estuarine Biology (3)
MBY 562 Coastal Ecosystems (3)
MBY 592 Seminar at the Coast (1)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 599 Thesis (3-6)

A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Indpendent Study) may be used.

Deficiencies will be ascertained by the student's committee and will be remedied prior to graduation.

GRADUATE PROGRAM IN MARINE BIOLOGY

Course Descriptions

MBY 501. Introduction to Scientific Research and Presentation (1) Scientific manuscript preparation and communication techniques: manuscript format, graphics, design of experiments, library use, and writing techniques. One lecture and one laboratory hour per week.

MBY 510. (Statistics 410) Applied Statistical Methods (3) Prerequisite: Credit in statistics. After a review of elementary statistics, the following major areas are studied: nonparametric methods, analysis of variance and experimental design and regression analysis. Three hours each week.

MBY 512. (Biology 410) Electron Microscopy and Cell Ultra Structure (3) Prerequisite: Course in cell physiology or permission of instructor. A discussion of

the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and functon of cell organelles in plants and animals. Three hours per week.

MBY 512-51. (Biology 410-51) Electron Microscopy Laboratory (1) Corequisite: Marine Biology 512 and permission of instructor. Techniques for fixing, embedding and thin section of tissue will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours per week.

MBY 515. Membrane and Neurobiology (4) Prerequisite: Course in physiology or permission of instructor. Introduction to the principles of diffusion, osmosis, active transport and membrane biophysics with emphasis on cellular and whole animal ionic and osmotic regulation, and neurophysiology. Emphasis will be placed on marine invertebrates and vertebrates. The laboratory will give experience in ion measurements, radioisotope handling, flux studies, and neurophysiological techniques. Three lecture and three laboratory hours each week.

MBY 520. (Biology 415) Vertebrate Histology (4) Prerequisite: Credit in biology. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

MBY 525. Marine Microbiology (4) Prerequisite: Course in microbiology or permission of instructor. Concepts of structure and function of microbes, nutrition, metabolism adaptation and genetics as related to the marine environment. The laboratory will center on techniques of studying microbes and their ecology, and the systematics of important micro-organisms. Three lecture and three laboratory hours each week.

MBY 530. Invertebrate Evolution (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. Critical analysis of current theories on the origin of the invertebrates and on origins of invertebrate phyla. The course will include a review of the historical development of evolutionary thought concerning invertebrate phylogeny, both from a neontological and palenontological viewpoint. Relevant data from modern studies in embryology, larval development, comparative morphology, functional morphology and serology will be stressed. Each student will be required to prepare a summary paper on the status of knowledge for a selected invertebrate group. Three hours each week.

MBY 531. Population Genetics (3) Prerequisite: Genetics. Basic principles of the dynamics of genes within populations. Topics include fitness, polymorphism, genetic equilibrium, and the effects of non-random mating and selection. Three hours each week.

MBY 532. (Geography 432) Biogeography (3) Prerequisite: Credit in physical geography or in geology or consent of the instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their de-

velopment by physiographic, climatic and evolutionary events in the past. Three hours each week.

MBY 534. (Biology 466) Advanced Ecology (4) Prerequisite: Ecology. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

MBY 535. (Biology 435) Molecular Genetics (3) Prerequisite: A course in genetics, biochemistry or cell physiology. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein systhesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity synthesis and function. Three lecture hours each week.

MBY 536. (Biology 436) Recombinant DNA Techniques (2) Prerequisite: A course either in genetics, physiology, or biochemistry. Basic principles and techniques of gene cloning using all three major types of cloning vectors: lambda phase, plasmids, and the single stranded DNA phage M13. Provdies hands- on experience in recombinant DNA methodology. One lecture and four laboratory hours each week. .

MBY 537. (Biology 457) Ichthyology (4) The systematics, evolution, and natural history of fishess, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

MBY 538. Cytogenetic Methodology (2) A laboratory course introducing the techniques necessary to study and analyze the chromosomes of a variety of organisms including plants and animals. One four-hour laboratory each week.

MBY 540. (Biology 465) Biochemistry (3) Prerequisite: Organic Chemistry. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids;. enzyme kinetics; bio-energetics, regulatory mechanisms. Three hours each week.

MBY 544. (Biology 440) Developmental Biology (4) Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environnmental control of develoment. Plant and animal systems studies in modern research literature will be discussed. Three lecture and three laboratory hours each week.

MBY 545. (Biology 445) Marine Physiology (4) Introduction to physiological systems characteristic of marine vertebrates and invertebrates. Emphasis is placed on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion and movement. Three lecture and three laboratory hours each week.

MBY 550. Vertebrate Systematics (4) Prerequisites: Two of the following: Ornithology, Herpetology, Mammalogy, Ichthyology. A detailed study of the processes of speciation in the vertebrates, including the theoretical and pragmatic approaches. Nomenclatorial procedures will be discussed. Three lecture and three laboratory hours each week.

MBY 551. Advanced Vertebrate Biology (2) Prerequisite: Permission of instructor. Individualized instruction in the identification, classification, and habitats of the terrestrial vertebrates of the coastal zone. This course will emphasize field methodologies and is designed to fill gaps in each student's knowledge of the classes of terrestrial vertebrates. Four laboratory hours each week.

MBY 552. (Biology 462) Deep Sea Biology (3) The biology of animals inhabiting the deep sea envirnoment off North Carolina. Emphasizes faunal zonation, abyssal zoogeography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea. Three hours each week.

MBY 553. Natural History of Intertidal Organisms (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. A study of the strategies adopted by major invertebrate groups inhabiting the itertidal zone. Field trips will permit the student to observe and identify relationships between vertical ranges of intertidal organisms and local biological and physical parameters that define zonation. An individual or group project on some aspect of recruitment, site preference, succession, or competition in intertidal populations will be required. Two lecture hours and field work.

MBY 554. (Biology 452) Mammalogy (4) A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptations, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lectures and three laboratory hours each week.

MBY 555. Methods in Sedimentology (4) Prerequisite: Introductory course in geology or permission of instructor. An introduction to the most important analytical tech-niques and research procedures that are currently used for studying sediments. Tech-niques included are: size analysis; grain shape; grain surface texture; textural analysis; compositional analysis; and chemical analysis. Two lectures and two-hour laboratories each week.

MBY 556. (Biology 456) Ornithology (4) An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

MBY 557. (Biology 454) Herpetology (4) A study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

MBY 558. Biology of Recreational and Commercial Fishes (3) Prerequisite: Basic course in ichthyology or permission of the instructor. Topics will broaden the student's knowledge of management of economically and socially important aquatic resources through discussions on ecology and fisheries oceanography, aquaculture, fish diseases and contemporary research. The emphasis will be upon fishes, but the course will include information on shrimp, molluscs, whales and other marine species. Two lecture and three laboratory periods each week.

MBY 559. (Biology 481) Marine Invertebrate Zoology (4) A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

MBY 560. Estuarine Biology (3) Prerequisite: Course in general ecology or permission of instructor. A study of the physical, chemical and biological interactions of the estuarine area: The effect of currents and circulation upon biological and chemical gradients; the role of nutrients in organic cycles, primary and secondary productivity and standing crops; energy transfer, stability and stresses in marine communities; pollution indicator species and endangered species in the estuarine environment. A special emphasis will be placed upon analytical techniques in gathering and processing estuarine data and in evaluation of local estuaries with respect to contemporary management planning. Two lecture and three laboratory hours each week.

MBY 561. Barrier Island Ecology (3) Prerequisite: Course in general ecology or permission of instructor. A survey of the dune forest and tidal marsh flora and vegetation. Topics will include descriptive, physiological and applied aspects of barrier island plants. Special topics include dune environment, halophytes, salt-spray effects, marsh energetics and nutrient cycling. Quantitative techniques will be used in characterization of island communities. Two lecture and three laboratory hours each week.

MBY 562. Coastal Ecosystems (3) Prerequisite: Course in general ecology or permission of instructor. Ecology of the major plant communities on the Coastal Plain. Systematics, structure and functions of the coastal community will be emphasized. Biotic and environmental sampling and comparison techniques will be emphasized. Two lecture and four laboratory hours each week.

MBY 563. Physical Oceanography (4) Dynamics and physics of the ocean with emphases on the physical properties of sea water, flow dynamics, and circulation. The laboratory will emphasize instrumentation, data collection, and analyses of marine dynamics. Three lecture and three laboratory hours each week.

MBY 564. Biological Oceanography (3) Encompasses a spectrum of special topics on factors that control the distribution patterns of marine organisms. The topics include: identification and evolution of marine biomes; seasonal, temporal and spatial trends in temperate marine environment; tropical vs polar marine productivity; temperature of water masses and biological implications with emphasis on gulf stream biology; pelagic and benthic community structure; marine food chain and trophodynamics; models of energy flow and budgets; biology of outer continental shelf; recruitment mechanism as influenced by natural and man-made causes. Special emphasis will be placed on methods of data gathering and theories behind advanced biological oceanographic techniques. Each student will specialize in a selected topic and will present a report at the end of the term. Three hours each week.

MBY 565. (Biology 458) Fisheries Biology (4) Prerequisite: Ichthyology, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

MBY 566. Behavioral Ecology of Reef Fishes (3) Prerequisite: Course in ichthyology or permission of instructor. An ecological and ethological approach to the study of reef fish biology. Current theories and problems dealing with the ecological

niche, competition, social systems, and population biology. Two lecture and three laboratory hours each week.

MBY 567. Biology 460) Limnology (4) Prerequisite: A laboratory course in inorganic chemistry or permission of instructor. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

MBY 569. Advanced Oceanography (3) Prerequisite: An introductory descriptive oceanography course. This course will consider mechanisms and dynamics of the ocean: the physical processes propelling oceanic currents, the reception and transmission of energy, and its influence upon living systems, statics and dynamics of waves, chemical distribution in the sea and their influence upon living marine organisms, dynamics of fertility and productivity in the marine environment. Two lecture and three laboratory hours each week.

MBY 570. (Biology 468) Planktonology (4) Prerequisite: Invertebrate Zoology or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

MBY 572. (Biology 472) Marine Phycology (4) An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

MBY 574. (Biology 475) Plant Taxonomy (4) Prerequisite: Introductory Botany. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of Southeastern North Carolina. Two lecture and four laboratory hours each week.

MBY 575. Taxonomy of Aquatic and Wetland Plants (3) Prerequisite: Introductory Taxonomy or consent of instructor. Discussion, collection, and identification of vascular plants found in the aquatic and wetland habitats of coastal North Carolina. Extensive field work and individualized instruction in collection and identification tech-niques. Two lecture and three laboratory hours each week.

MBY 576. (Biology 474) Comparative Morphology of Vascular Plants (4) A detailed study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

MBY 577. Marine and Estuarine Mycology (3) Prerequisite: Mycology or permission of instructor. An in-depth survey of the mycoflora of oceanic and estuarine waters with emphasis on collecting and culturing techniques. An in-depth treatment of taxonomy and ecology of important fungal groups will also be given. Two lecture and three laboratory hours each week.

MBY 580. (Biology 480) Field Studies in Biology (1-6) A research experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

MBY 585. (Biology 485) Special Topics in Advanced Biology (1- 6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

MBY 588. (Chemistry 476) Chemical Analysis of Natural Waters (2) Prerequisite: Permission of instructor. Evaluation of common chemical methods for the analysis of complex natural waters is included. Appropriate use of these methods is demonstrated. Analyses studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended materials, and dissolved metals. One lecture and three laboratory hours each week.

MBY 589. (Chemistry 475) Chemical Ocenography (3) Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week.

MBY 591. Directed Independent Study (3)

MBY 592. Seminar at the Coast (1) Participation in planning and conducting a series of field exercies in the coastal zone of North Carolina.

MBY 593. Colloquium in Marine Biology (1) Investigation and discussion of selected topics and current issues through the interaction of students, faculty, and expert guest lecturers.

MBY 595. Seminar in Marine Biology (1) Discussion of selected topics in marine biology.

MBY 596. Seminar at Sea (1) Participation in pre-cruise planning and a biological oceanographic cruise to obtain practical knowledge on methods of sampling.

MBY 599. Thesis (1-6)

FACULTY

FACULTY

Sheila Anne Adams, *Associate Professor of Management,* B.S., M.B.A., University of Nevada-Reno; Ph.D., University of Washington.

Louis Henry Adcock, *Professor of Chemistry,* B.S., M.A., Duke University; Ph.D., Louisiana State University.

Syed Shahzad Ahmad, *Assistant Professor of Political Science,* B.A., M.A., Aligarh University; Ph.D., University of Tennessee.

William Franklin Ainsley, Jr., *Associate Professor of Geography,* A.B., M.A., University of North Carolina at Chapel Hill; M.Div., Southeastern Baptist Theological Seminary; Phh.D., University of North Carolina at Chapel Hill.

David Bruce Allen, *Lecturer in Physical Education,* B.S., M.S., Springfield College.

F. Dean Allen, *Assistant Professor in Recreation,* B.S., M.A., Brigham Young University; Ph.D., Texas A & M University.

Thomas Earl Allen, *Professor of Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Walser H. Allen, *Associate Professor of History,* B.A., Moravian College; M.Div., Moravian Theological Seminary; M.A., University of North Carolina at Chapel Hill.

Ferenc Altrichter, *Associate Professor of Philosophy and Religion,* B.A., B.S., M.A., M.S., Eotvos Lorand University of Budapest; Ph.D., Hungarian Academy of Sciences.

Carlos S. Alves, *Assistant Professor of Mathematical Sciences,* B.S., M.S., Faculdade Porto, Portugal; M.A., Ph.D., Pennsylvania State University.

Arvid Asa Anderson, *Associate Professor of Marketing,* B.B.A., M.B.A., Ph.D., The University of Texas at Austin.

Elizabeth T. Anderson, *Adjunct Lecturer in Medical Technology,* B.A., University of North Carolina at Greensboro; B.S., Bowman-Gray School of Medical Technology; MT (ASCP).

John Michael Anderson, *Associate Professor of Management,* B.S., United States Naval Academy; A.B., University of North Carolina at Wilmington; M.B.A., East Carolina University; Ph.D., North Carolina State University.

James Milton Applefield, *Assistant Professor of Education,* B.A., University of North Carolina at Chapel Hill; M.A., Emory University; M.Ed., University of Georgia; Ph.D., Georgia State University.

Pauline F. Applefield, *Assistant Professor of Psychology,* B.A., Bethany College; M.S., Ph.D., Pennsylvania State University.

Robert W. Appleton, *Associate Professor of Accountancy,* B.S., Belmont College; M.B.A., Memphis State University; CPA.

Saul Bachner, *Professor of Education,* B.A., M.Ed., Ph.D., Wayne State University.

Ravija Badarinathi, *Assistant Professor of Management,* B.S., M.S., Allahabad University; Ph.D., University of Georgia.

Timothy Alan Ballard, *Assistant Professor of Biology,* B.S., Appalachian State University; Ph.D., Bowman Gray School of Medicine of Wake Forest University.

Paz Irabagon Bartolome, *Professor of Education,* B.S., E. Ed., Philippine Normal; M.Ed., Miami University; Ph.D., Ohio State University.

Donna Gregg Basch, *Adjunct Lecturer in Medical Technology,* B.S., Carson Newman College; MT (ASCP) SC, Bowman Gray School of Medical Technology.

James Rush Beeler, *Professor of French,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Mary Dixon Bellamy, *Assistant Professor of Spanish,* A.B., East Carolina Univeristy; M.A., University of North Carolina at Chapel Hill; graduate study, Universidad de Valladolid.

Sanford P. Benjamin, *Adjunct Professor of Medical Technology,* B.S.,Ohio State University; M.D., Wayne State University College of Medicine.

Kathleen Christine Berkeley, *Associate Professor of History, B.A.. M.A., Ph.D., University of California, Los Angeles.*

David Roy Berman, *Assistant Professor of Mathematical Sciences,* B.A., University of Texas at Austin; M.A., University of California at Berkeley; Ph.D., University of Texas at Austin.

Walter Clark Biggs, Jr., *Professor of Biology,* B.A., East Carolina University; M.S., Texas A & M University; Ph.D., North Carolina State University.

Virginia Lee Bissenger, *Adjunct Lecturer in Medical Technology,* B.S., University of North Carolina at Wilmington; MT (ASCP).

Delilah Bowen Blanks, *Assistant Professor of Social Work,* A.B., Shaw University; A.B., East Carolina University; M.S.W., Ph.D., University of North Carolina at Chapel Hill.

Frank Joseph Bongiorno, *Assistant Professor of Music.,* B.M., Ithaca College; M.M., North Texas State University; graduate study, Indiana University.

James A. Boylston, *Adjunct Professor of Medical Technology,* B.S., University of South Carolina; M.D., Duke University.

Michael Bradley, *Professor of Psychology,* B.A., M.Ed., Ed.D., University of Georgia.

Ralph W. Brauer, *Professor of Marine Physiology,* A.B., Columbia University; M.Sc., Ph.D., University of Rochester.

William Jasper Brooks, *Associate Professor of Physical Education,* A.B., Atlantic Christian College; M.A., East Carolina University.

Jeffery L. Brown, *Assistant Professor of Mathematical Sciences,* B.S., M.A., Ph.D., University of Georgia.

Robert Tindall Brown, *Professor of Psychology,* A.B., Hamilton College; Ph.D., Yale University.

Thomas P. Brown, *Assistant Professor of Mathematical Sciences,* A.B., University of North Carolina at Chapel Hill; M.A., East Carolina University.

Katherine Ely Bruce, *Assistant Professor of Psychology,* B.A., Southwestern at Memphis; M.S., M.A., Ph.D., University of Georgia.

William A. Bryan, *Professor of Education,* B.S., Florida State University; M.S., Indiana University; Ed.D., University of Wyoming.

Thomas Joseph Burke, *Assistant Professor of Management,* A.B., Sacramento State College; M.B.A., University of Miami.

Grace M. Burton, *Professor of Education,* A.B., Annhurst College; M.A., Ph.D., University of Connecticut.

Robert H. Byington, *Professor of English and Folklore,* A.B., Pennsylvania State University; M.A., Lehigh University; Ph.D., University of Pennsylvania.

Charles L. Cahill, *Professor of Chemistry,* A.B., Oklahoma Baptist University; M.S., Ph.D., University of Oklahoma.

Lawrence Bruce Cahoon, *Assistant Professor of Biology,* B.S., Washington and Lee University; Ph.D., Duke University.

Denis G. Carter, *Associate Professor of Economics,* A.B., Boston College; Ph.D., University of Florida.

Frank L. Chapman, *Lecturer in Physical Education,* B.S., M.S., Florida State University.

Marilyn K. Christoph, *Lecturer in Physical Education,* B.S., Appalachian State University; M.S., North Carolina A & T State University.

Irvin Garrett Clator, *Associate Professor of Physics,* B.S., M.S., Ph.D., West Virginia University.

Catherine Cecilia Cleare, *Associate Professor of Education,* B.A., Hunter College, CUNY; M.A.T., Bowling Green State University; Ph.D., University of Maryland.

William James Cleary, *Professor of Geology,* A.B., Southern Illinois University; M.A., Duke University; Ph.D., University of South Carolina.

John P. Clifford, *Associate Professor of English,* B.A., St. Francis College; M.A., Ph.D., New York University.

James Glenn Collier, Jr., *Associate Professor of English,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Harry Allen Comeskey, *Assistant Professor of Finance,* B.S., United States Military Academy; M.B.A., D.B.A., University of Colorado.

Ann Louise Conner, *Associate Professor of Art,* B.A., Salem College; Special Studies in Art, Salem-Hofstra University, Asolo, Italy; M.A.C.T., M.F.A., University of North Carolina at Chapel Hill.

Mary Gendernalik Cooper, *Assistant Professor of Education,* B.A., Michigan State University; M.A.T., Ph.D., Wayne State University.

Ronald E. Copley, *Associate Professor of Finance,* B.A., M.B.A., Old Dominion University; Ph.D., University of South Carolina.

Joanne King Corbett, *Professor of English,* A.B., Coker College; M.A., Ph.D., University of Montreal.

Thaddeus G. Dankel, Jr., *Professor of Mathematical Sciences,* B.S., Duke University; M.A., Ph.D., Princeton University.

Fred Blount Davenport, Jr., *Assistant Professor of Business Law,* B.A., M.B.A., J.D., University of North Carolina at Chapel Hill.

Brian F. Davis, *Assistant Professor of Physics,* B.S., Bowling Green State University; Ph.D., North Carolina State University.

Richard Ryder Deas, *Professor of Music,* B.F.A., University of New Mexico, B.S., M.S., Juilliard School of Music; Ed.D., Columbia University.

Howard T. DeHaven, *Adjunct Professor of Medical Technology,* B.S., Murray State University; M.D., University of Louisville.

Margaret B. DiCenzo, *Adjunct Lecturer in Medical Technology,* A.B. University of North Carolina at Greensboro; MT (ASCP).

Richard M. Dillaman, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research.* B.A., University of Virginia; Ph.D., University of South Carolina.

James C. Dixon, *Professor of Political Science,* A.B., M.A., Marshall University; Ph.D., Emory University.

Richard David Dixon, *Associate Professor of Sociology,* B.A., University of Connecticut; M.A., Marshall University; Ph.D., Emory University.

James Allen Dockal, *Assistant Professor of Geology,* B.S., M.S., Iowa State University; Ph.D., University of Iowa.

Diane Marie Beaudoin Dodd, *Assistant Professor of Biology,* B.A., Agnes Scott College; M.S., M.Phil., Ph.D., Yale University.

Charles Brooks Dodson, *Professor of English,* B.A., DePauw University; M.A., Indiana University; Ph.D., University of Nebraska.

Calvin L. Doss, *Associate Professor of Education,* B.S., Berry College; M.Ed., University of Gerogia; Ph.D., University of North Carolina at Chapel Hill.

Joseph B. Dudley, *Adjunct Professor of Medical Technology,* B.S., Davidson College; M.D., University of Pennsylvania.

Carolyn S. Dunn, *Associate Professor of Biology,* B.S., M.A., University of Louisville; Ph.D., Ohio State University.

Rodney S. Earle, *Assistant Professor of Education,* Dip. T., Kelvin Grove Teachers College; B.A., M.Ed., Brigham Young University; Ph.D., Indiana University.

Charles L. Earney, *Assistant Professor of Accountancy,* B.B.A., University of Wisconsin-Eau Claire; M.B.A., University of Wisconsin-Madison; CPA.

Marc R. Ellington, *Lecturer in Physical Education,* B.S., M.Ed., Springfield College.

Norman E. Ellis, *Associate Professor of Education,* B.S., M.A., Ball State University; Ph.D., University of North Carolina at Chapel Hill.

Patricia Carol Ellis, *Assistant Professor of English,* B.A., M.A., Ph.D., University of Georgia.

William Lester Etheridge, *Assistant Professor of Mathmetical Sciences,* B.S., M.S., University of Illinois; Ph.D., Purdue University.

John F. Evans, *Lecturer in English,* B.S. Ed., Dr. Martin Luther College; M.A.T., Saginaw Valley State College; further graduate work, Breadloaf School of English.

Claude Herman Farrell, III, *Professor of Economics,* B.S., M.E., Ph.D., North Carolina State University.

Gary L. Faulkner, *Professor of Sociology,* B.A., M.A., Ball State University; Ph.D., University of Georgia.

Carole K. Fink, *Professor of History,* B.A., Bard College; M.A., Ph.D., Yale University.

Lenora W. Flynn, *Adjunct Assistant Professor of Medical Technology,* B.A., M.Ed., University of North Carolina at Greensboro.

Charles Fort, *Assistant Professor of English,* B.A., Siena Heights College; M.F.A., Bowling Green State University.

Isabell L. Foushee, *Assistant Professor of English,* B.S., M.A., East Carolina University.

Dargan Frierson, Jr., *Associate Professor of Mathematical Sciences,* B.A., M.A., University of North Carolina at Greensboro; Ph.D., University of Arizona.

Charles McGhee Fugler, *Professor of Biology,* B.S., Tulane University; M.S., Louisiana State University; Ph.D., Auburn University.

Donald E. Furst, *Assistant Professor of Art,* B.A., M.A., M.F.A., University of Iowa.

J. Mark Galizio, *Professor of Psychology,* B.A., Kent State University; M.S., Ph.D., University of Wisconsin-Milwaukee.

John M. Garris, *Assistant Professor of Management,* B.A., University of North Carolina at Chapel Hill; M.S., Ph.D., Clemson University.

Robert Yesudian George, *Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.Sc., Madras Christian College; M.Sc., Presidency College; Ph.D., University of Madras.

Cathy A. Gerdes, *Lecturer in Physical Education,* B.S., University of Oklahoma, M.A., University of Iowa.

Melvin Lee Gibson, *Lecturer in Physical Education,* B.S., M.A., Western Carolina University.

Howard Lee Gillen, *Adjunct Professor of Physiology,* B.S., M.D., University of Illinois.

Nancy Gilliland, *Assistant Professor of Nursing,* B.S.N., University of North Carolina at Chapel Hill; M.N., Emory University.

Nancy J. Gladwell, *Assistant Professor of Recreation,* B.S.R., M.S.P.E., West Virginia University; Re.D., Indiana University.

Paul Allen Gray, Jr., *Assistant Professor of Nursing and Director RN ACCESS Program;* Diploma in Nursing, Mercy Hospital School of Nursing; B.S.N., North Carolina Central University; A.B., M.S.N., Ph.D., University of North Carolina at Chapel Hill.

Barbara Ann Greim, *Associate Professor of Mathmetical Sciences,* B.S., Ursinus College; Ph.D., University of North Carolina at Chapel Hill.

Kenneth Rufus Gurganus, *Assistant Professor of Mathmetical Sciences;* B.S., M.S., Ph.D., University of North Carolina at Chapel Hill.

Bobby Lee Guthrie, *Lecturer in Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill.

Courtney T. Hackney, *Associate Professor of Biology,* B.S., University of South Alabama; M.S., Emory University; Ph.D., Mississippi State University.

John Hamilton Haley, *Assistant Professor of History,* A.B., Virginia State College; M.A., Old Dominion University; Ph.D., University of North Carolina at Chapel Hill.

Jack Charles Hall, *Lecturer in Geology,* B.S., Grand Valley State College; M.S., University of North Carolina at Chapel Hill.

William Woodward Hall, Jr., *Associate Professor of Economics,* B.A., Presbyterian College; M.S., Ph.D., Clemson University.

Arlene Anderson Hanerfeld, *Assistant Professor and Documents Librarian,* B.S. University of North Carolina at Greensboro; M.S.L.S. University of North Carolina at Chapel Hill.

Roy Eugene Harkin, *Professor of Education,* A.B., M.A., Ball State University; Ph.D., Claremont Graduate School.

Stephen Coale Harper, *Professor of Management,* B.B.A., University of New Mexico; M.B.A., University of Arizona; Ph.D., Arizona State University.

William Burleigh Harris, *Professor of Geology,* B.S., Campbell College; M.S., West Virginia University; Ph.D., University of North Carolina at Chapel Hill.

Paul Graham Hatcher, *Assistant Professor of Health and Physical Education,* B.A., Belmont College; M.S., Western Kentucky University; Ph.D., George Peabody College for Teachers.

Andrew E. Hayes, *Associate Professor of Education,* B.S., M.A., Louisiana Polytechnic Institute; Ed.D., University of Georgia.

Hathia A. Hayes, *Associate Professor of Education,* B.S., M.S., Louisiana Polytechnic Institute; Ed.D., University of Georgia.

Timothy W. Haywood, *Associate Professor of Physics, B.S., University of Georgia; Ph.D., University of North Carolina at Chapel Hill.*

Robert Taylor Herbst, *Professor of Mathematical Sciences,* B.A., Duke University; M.S., North Carolina State University; Ph.D., Duke University.

Hildelisa Caridad Hernandez, *Associate Professor of Physics,* Sc.D., University of Havana.

Sue Ann Cody Hiatt, *Assistant Professor and Special Collections Librarian,* B.S., Ball State University; M.L.S., Indiana University.

Joe Eugene Hickman, *Assistant Professor of Music,* B.M., West Virginia University; M.M., D.M., Indiana University.

Karen L. Hicks, *Adjunct Assistant Professor of Biology,* B.S., Grand Valley State College; Ph.D., Cornell University.

Robert Price Higgins, *Adjunct Research Professor in Biological Oceanography,* B.A., M.A., University of Colorado; Ph.D., Duke University.

Roger Post Hill, *Professor of Economics and Finance,* B.S., North Carolina State University; M.S., Oklahoma State University; Ph.D., Michigan State University; postdoctoral study, University of North Carolina at Chapel Hill.

Charlotte B. Hoelzel, *Adjunct Assistant Professor of Nursing,* B.S., Vanderbilt University; M.S., Medical College of Virginia.

Nancy Lucinda Hollifield, *Assistant Professor of Physical Education,* B.A., Furman University; M.Ed., University of Georgia; Ph.D., Louisiana State University.

Earl D. Honeycutt, *Lecturer in Marketing,* B.S., M.B.A., Appalachian State University; M.S., Chapman College; Ph.D., University of Georgia.

Larry R. Honeycutt, *Lecturer in Physical Education,* B.A., University of North Carolina at Wilmington; M.A.T., University of North Carolina at Chapel Hill.

Laura A. Honeycutt, *Lecturer in Marketing,* B.S., Bucknell University; M.B.A., Appalachian State University.

Lee Norman Hood, *Lecturer in Physical Education,* B.A., Ohio Northern University; M.Ed., Austin Peay State University.

Frederick M. Hornack, *Professor of Chemistry,* B.S., Lowell Technological Institute; Ph.D., Florida State University.

Paul Edward Hosier, *Professor of Biology,* B.S., New Paltz State University (New York); M.A., University of Massachusetts; Ph.D., Duke University.

Eugene William Huguelet, *Associate Professor and Director of Library Sciences,* B.A., University of North Carolina at Chapel Hill; M.A., East Carolina University; M.L.S., Emory University.

Harold G. Hulon, *Professor of Education,* A.B., M.Ed., Ph.D., University of North Carolina at Chapel Hill.

John R. Huntsman, *Assistant Professor of Geology,* B.S., Mount Union College; M.A., Ph.D., Bryn Mawr College.

LuEllen Huntley, *Lecturer in English,* B.A., North Carolina State University; M. Litt., Breadloaf School of English.

Susan Mills Isen, *Assistant Professor of Philosophy and Religion,* B.A., Reed College; Ph.D., Indiana University.

Lee Anderson Jackson, Jr., *Professor of Psychology,* B.A., Hampden-Sydney College; M.A., Ph.D., University of Florida.

Louise Jackson, *Assistant Professor and Serials Librarian,* Winthrop College; M.L.S., Emory University.

Paul Emil Jambor, *Associate Professor of Mathmetical Sciences,* M.A., Charles University, Prague; M.A., Columbia University; Ph.D., Charles University, Prague.

D. Ronald Johnson, *Assistant Professor and Circulation Librarian,* A.B., East Carolina University; M.L.S., George Peabody College.

James D. Johnson, *Assistant Professor of Psychology,* B.A., North Carolina Agricultural & Technical State University; Ph.D., Indiana University.

W. Lee Johnston, *Associate Professor of Political Science,* B.A., University of North Carolina at Chapel Hill; M.S., Ph.D., University of Maryland.

William Jay Johnston, *Assistant Professor of Education,* B.S., Midwestern University; M.A., Memphis State University; Ph.D., University of North Carolina at Chapel Hill.

Lloyd P. Jones, *Assistant Professor of Political Science,* B.A., Southern Illinois University; M.S., Northeastern University; Ph.D., Northern Illinois University.

Noel K. Jones, *Associate Professor of Education,* B.A., Harvard College; M.A., Stanford University; Ph.D., Cornell University.

Rebecca B. Jones, *Lecturer in Chemistry,* B.A., Agnes Scott College; M.S., Brown University.

S. Bart Jones, *Assistant Professor of Chemistry,* B.S., Davidson College; Ph.D., West Virginia University.

Donald F. Kapraun, *Professor of Biology,* B.S., Eastern Illinois University; Ph.D., University of Texas at Austin.

John K. Karlof, *Associate Professor of Mathmetical Sciences,* B.A., State University of New York at Oswego; M.A., Ph.D., University of Colorado; M.S., State University of New York at Stonybrook.

Norman R. Kaylor, *Professor of Accountancy,* B.S., Middle Tennessee State University; M.B.A., Georgia State University; Ph.D., University of Mississippi.

Robert J. Keating, *Lecturer in Management,* B.S., M.B.A., Southern Illinois University; D.B.A. candidate, Kent State University.

Anne S. Kendrick, *Assistant Professor of Biology,* B.A., Longwood College; B.S., M.S., Medical College of Virginia; MT (ASCP).

Kun Jang Kim, *Assistant Professor of Accountancy,* B.A., Sogang University; M.C., University of Richmond; D.B.A., University of Kentucky, CPA.

Bruce L. Kinzer, *Assistant Professor of History,* B.A., Eastern Michigan University; M.A., University of Michigan; Ph.D., University of Toronto.

Mary Lawrence Kirk, *Lecturer and Assistant Catalogue Librarian,* B.S., University of Tennessee; M.L.S., University of North Carolina at Greensboro.

Joseph M. Kishton, *Associate Professor of Psychology,* B.S., M.A., Ph.D., Ohio State University.

Kathleen Helena Kowal, *Associate Professor of Psychology,* B.S., University of Maryland; M.A., Ph.D., Columbia University.

Randy L. LaGrange, *Assistant Professor of Criminal Justice,* B.S., M.A., University of Toledo; Ph.D., Rutgers University.

Brian A. Lakey, *Assistant Professor of Psychology,* B.A., Arizona State University; Ph.D., Indiana University.

Caryl Sue Lamb, *Associate Professor of Psychology,* B.A., M.S.W., University of North Carolina at Chapel Hill; Ph.D., University of Iowa.

Calvin L. Lane, *Lecturer in Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill.

James A. Lanier, III, *Adjunct Associate Professor of Biology,* B.A., University of Virginia; M.A., Ph.D., College of William and Mary.

Louis J. LaNunziata, Jr., *Assistant Professor of Education,* B.S., East Stroudsburg State College; M.Ed., Bloomsburg State College; Ph.D., The Ohio State University.

Pierre-Jean G. Lapaire, *Assistant Professor of French,* B.A., University of Perpignan, France; M.A., Ph.D., University of North Carolina at Chapel Hill.

Richard A. Laws, *Assistant Professor of Geology,* B.A., University of North Carolina at Wilmington; M.A., University of California, Berkeley; Ph.D., University of California, Berkeley.

Luther Drew Lawson, *Assistant Professor of Economics,* B.S., M.S., Indiana State University; Ph.D., University of Tennessee.

Michael H. Leaken, *Adjunct Professor of Medical Technology,* B.A., Loyola University; M.D., University of Maryland.

Stephen D. LeQuire, *Associate Professor of Art,* B.A., M.F.A., East Tennessee State University.

Patricia Barker Lerch, *Associate Professor of Anthropology,* B.A., Cleveland State University; M.A., Ph.D., Ohio State University.

Diane E. Levy, *Associate Professor of Sociology,* A.B., M.A., Ph.D., Temple University.

Jack B. Levy, *Professor of Chemistry,* A.B., Duke University; M.S., Ph.D., North Carolina State University.

Charles A. Lewis, *Professor of Recreation,* B.S., New York State Maritime College; M.S., Hofstra University; M.A., C. W. Post College; Ph.D., New York University.

David O. Lewis, *Assistant Professor of Business Law,* B.S., The University of North Carolina at Wilmington; J.D., The University of North Carolina at Chapel Hill.

Judith Bledsoe Lewis, *Assistant Professor of Physical Education,* B.S., East Carolina University; M.S., University of North Carolina at Chapel Hill.

David Gregory Lindquist, *Professor of Biology,* B.A., University of California-Los Angeles; M.A., California State University-Hayward; Ph.D., University of Arizona.

Thomas Coriell Loftfield, *Associate Professor of Anthroplogy,* B.A., William and Mary; M.A., Ph.D., University of North Carolina at Chapel Hill.

Richard C. Longo, *Lecturer in Military Science,* B.A., Furman University.

Jane M. Lowe, *Lecturer in Nursing,* B.S. in Nursing, University of North Carolina at Chapel Hill.

William F. Lowe, *Assistant Professor of German,* A.B., M.A., University of North Carolina at Chapel Hill; candidate for the doctor's degree, North Carolina State University.

Roger Coyle Lowery, *Associate Professor of Political Science,* B.A., M.A., Southern Illinois University; Ph.D., Washington University (St. Louis).

Gabriel G. Lugo, *Assistant Professor of Mathematical Sciences,* B.A., M.A., Ph.D., University of California, Berkeley.

Carl Victor Lundeen, *Associate Professor of Biology,* A.B., University of North Carolina at Chapel Hill; Ph.D., Rockefeller University.

Thomas R. Lupton, *Assistant Professor of Mathematical Sciences,* B.S., M.A., East Carolina University; graduate study, Texas A & M University.

Thomas G. MacLennan, *Associate Professor of English,* B.A., M.A., State University College at Buffalo; Ph.D., State University of New York at Buffalo.

Robert Dale McCall, *Associate Professor of Anthropology and Research Associate at the Institute for Marine Biomedical Research* B.S., M.S., Florida State University; Ph.D., Case Western Reserve University.

Thomas Culbreth McCall, *Assistant Professor of English,* B.A., M.Ed., University of North Carolina at Chapel Hill.

Michael B. McColl, *Lecturer in English,* B.A., University of Michigan; M.A., Hollins College, M.F.A., Bowling Green State University.

James G. McCormick, *Adjunct Professor of Physiology,* B.S., Bucknell University; Ph.D., Princeton University.

Ralph C. McCoy, *Adjunct Professor of Medical Technology,* B.A., M.D., Emory University.

Anne Bowden McCrary, *Professor of Biology,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Kathy E. McDaniel, *Lecturer in Physical Education,* B.S., University of North Carolina at Greensboro, M.A., Appalachian State University.

Agnes McDonald, *Lecturer in English,* B.A., M.A., University of Missouri at Columbia.

James R. McGee, *Adjunct Professor of Medical Technology,* B.S., Florida Southern College; M.T. (ASCP)

James Kevin McGowan, *Professor of Philosophy and Religion,* A.B., Mary Immaculate College; Ph.L., The Catholic University of America; Ph.D., University of Louvain.

Phillip McGuire, *Associate Professor of History,* B.S., Bishop College; M.A., Southern Methodist University; Ph.D., Howard University.

Diane L. McKinstry, *Lecturer in Psychology,* B.S., Fordham University; Ph.D., University of Minnesota.

Harry C. McLamb, *Assistant Professor of Music,* B.M.E., East Carolina University; M.M., Southern Illinois University.

Melton A. McLaurin, *Professor of History,* B.S., M.A., East Carolina University; Ph.D., University of South Carolina.

Sandra C. McLaurin, *Associate Professor of Mathematical Sciences,* B.S., M.A., East Carolina University; Ph.D., University of South Carolina.

Stephen J. McNamee, *Assistant Professor of Sociology,* A.B., Rutgers University, Camden; A.M., Ph.D., University of Illinois, Urbana-Champaign.

Helen Jones Majette, *Assistant Professor of Nursing,* B.S.N., University of North Carolina; M.A., Columbia University.

John J. Manock, *Professor of Chemistry,* B.S., Washington and Jefferson College; Ph.D., Ohio University.

Dorothy P. Marshall, *Lecturer in Management,* B.S., East Carolina University; graduate study, George Peabody College.

Ned Harold Martin, *Professor of Chemistry,* A.B., Denison University; Ph.D., Duke University.

Ronald S. Martin, *Assistant Professor and Director of ROTC,* B.A., San Jose State University; M.S., the University of Southern California.

Sherrill Virginia Martin, *Associate Professor of Music,* B.M., Samford University; M.M., University of Alabama; Ph.D., University of North Carolina at Chapel Hill.

Jane Mathew, *Assistant Professor of Music,* B.M., University of Nebraska-Lincoln; M.A., University of Iowa; M.M., Indiana University.

Eleanor K. Maxwell, *Assistant Professor of Sociology,* B.S., M.A., Temple University; Ph.D., University of California, San Francisco.

James Joseph Megivern, *Professor of Philosophy and Religion,* B.A., M.A., Mary Immaculate College; S.T.L., Th.D., University of Fribourg; S.S.L., Biblical Institute, Rome.

James Francis Merritt, *Associate Professor of Biology,* B.S., M.A., East Carolina University; Ph.D., North Carolina State University.

Ellen Pletcher Metzer, *Assistant Professor of Geology,* B.S., University of New Orleans; M.S., Ph.D., Syracuse University.

Marcee J. Meyers, *Associate Professor of Education,* B.S., Syracuse University; M.Ed., American University; Ph.D., University of South Florida.

Terry Lynn Middleswarth, *Lecturer in Physical Education,* B.S., M.Ed., East Central State College; M.S., Oklahoma University; graduate study, University of North Carolina at Chapel Hill.

David Keith Miller, *Professor of Physical Education,* B.S., Wake Forest University; M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Robert Kent Miller, Jr., *Associate Professor of Sociology,* A.B., Franklin and Marshall College; MA., Ph.D., Temple University.

Sybil K. Miller, *Assistant Professor of Chemistry,* B.S., Meredith College; Ph.D., North Carolina State University.

Joel J. Mintzes, *Professor of Biology,* B.S., M.S., University of Illinois, Chicago; Ph.D., Northwestern University.

John E. Morgan, Jr., *Assistant Professor of Economics,* B.S.,The College of William and Mary; M.S.I.M., Georgia Institute of Technology; Ph.D., The University of Georgia.

Thomas Vernon Moseley, *Professor of History,* B.A., East Carolina University; M.A., Ph.D., University of North Carolina at Chapel Hill.

Joann McFerran Mount, *Assistant Professor of Spanish,* B.A., University of Arkansas; M.A., Ph.D., University of Kentucky.

Richard Terry Mount, *Associate Professor of Spanish,* B.A., Vanderbilt University; M.A., University of North Carolina at Chapel Hill; Ph.D., University of Kentucky.

Richard H. Mullendore, *Lecturer in Education, B.A., Bradley University;* M.S., Southern Illinois University; Ph.D., Michigan State University.

Peter R. Mueller-Roemer, *Associate Professor of Mathematical Sciences,* Vordiplom, University of Mainz (Germany); M.A., University of North Carolina at Chapel Hill; Ph.D., University of Bielfeld (Germany).

John W. Myers, *Assistant Professor of Art,* B.A., Hobart College; M.A., University of Wisconsin, Madison; Ph.D., University of Delaware.

Lewis E. Nance, *Professor of Chemistry,* B.S., M.S., Clemson University; Ph.D., University of the Pacific.

James Harold Nelson, *Associate Professor of Mathematiccal Sciences,* B.E., M.S., Ph.D., Vanderbilt University.

Rolla Clayborne Nelson, *Assistant Professor of Physics,* B.S., M.A., University of North Carolina at Chapel Hill.

Darwin R. Newton, *Professor of Psychology,* B.A., Chadron State College; M.S., Ed.D., University of Northern Colorado.

Hana S. Noor Al-Deen, *Lecturer in Speech Communication,* B.A., Al-Mustansiriyah University; M.A., California State University-Sacramento; Candidate for the Doctor's Degree, State University of New York-Buffalo.

Fletcher Ragland Norris, *Professor of Mathematical Sciences,* B.A., Vanderbilt University; M.A., Ph.D., George Peabody College; post doctoral study, Florida State University.

Michael L. O'Connor, *Adjunct Professor of Medical Technology,* B.S. Rockhurst College; M.S., University of Wisconsin; M.D., University of Kansas.

Edward Alexander Olszewski, Jr., *Associate Professor of Physics,* B.S., Worchester Polytechnic Institute; Ph.D., University of North Carolina at Chapel Hill.

William H. Overman, Jr., *Professor of Psychology and Adjunct Professor of Biology,* B.A., Wake Forest University; M.S., Ph.D.,The Pennsylvania State University.

David Emerson Padgett, *Associate Professor of Biology,* A.B., Duke University; M.S., Ph.D., Ohio State University.

Margaret Holt Parish, *Assistant Professor of English,* B.A., Elmira College; M.L.S., Simmons College; Ph.D., Michigan State University.

James F. Parnell, *Professor of Biology,* B.S., M.S., Ph.D., North Carolina State University.

Virginia C. Payne, *Assistant Professor of Nursing,* B.S.N., M.S.H.E., M.S.N., East Carolina University.

Elizabeth A. Pearsall, *Assistant Professor of English,* A.B., University of North Carolina at Greensboro; M.A., University of North Carolina at Chapel Hill.

Carlos Alberto Perez, *Assistant Professor of Spanish,* A.B., Wake Forest University; M.A., Ph.D., University of North Carolina at Chapel Hill.

Jeffery L. Phillips, *Assistant Professor of Psychology,* B.A., State University of New York at Binghamton; M.A., Ph.D., Southern Illinois University at Carbondale.

Daniel Belk Plyler, *Professor of Biology,* A.B., Pfeiffer College; M.A., Ph.D., University of North Carolina at Chapel Hill.

Sylvia Knopp Polgar, *Associate Professor of Sociology,* B.S., M.A., Columbia University; MSW, Ph.D., University of North Carolina at Chapel Hill.

Antonio E. Puente, *Associate Professor of Psychology*, B.A., University of Florida; Ph.D., University of Georgia.

Robert J. Rafalko, *Assistant Professor of Philosophy and Religion*, A.B., University of Scranton; M.A., Tufts University; Ph.D., Temple University.

Duncan P. Randall, *Professor of Geography*, A.B., University of Georgia; M.A., Northwestern University; Ph.D., University of North Carolina at Chapel Hill.

James H. Reeves, *Assistant Professor of Chemistry*, B.A., Ph.D., Northeastern University.

Edward J. Reilly, *Psychological Counselor and Lecturer in Psychology*, B.A., Hunter College of CUNY; M.Ed., Ed.S., Ph.D., University of Florida.

J. Paul Reynolds, *Adjunct Professor of Biology*, B.S., Guilford College; M.S., University of North Carolina at Chapel Hill; Ph.D., The Johns Hopkins University.

Robert D. Roer, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research*, B.S., Brown University; Ph.D., Duke University.

Spencer McMath Rogers, Jr., *Adjunct Research Associate in Earth Sciences*, B.S., University of Virginia, M.S., University of Florida.

W. Terry Rogers, *Associate Professor of Drama and Speech*, B.A., University of Florida; M.S., M.A., Ph.D., Florida State University.

Lloyd Earl Rohler, Jr., *Assistant Professor of Speech Communication*, B.A., M.A., Ph.D, Indiana University.

Richard Allan Roscher, *Assistant Professor of Accountancy*, B.B.A., University of Notre Dame; M.B.A., University of Denver; CPA.

Marlene M. Rosenkoetter, *Associate Professor of Nursing*, Diploma in Nursing, Barnes Hospital School of Nursing; B.A., M.Ed., University of Missouri; M.S.N., East Carolina University; Ph.D., St. Louis University.

Gerald S. Rosselot, *Associate Professor of English*, B.S., Wilmington College (Ohio); M.A., DePauw University; Ph.D., University of North Carolina at Chapel Hill.

David Byron Roye, *Associate Professor of Biology*, B.S., College of William and Mary; M.S., Ph.D., University of Florida.

James Carmen Sabella, *Professor of Anthropology*, B.S., State University of New York, Cortland; M.A., Ph.D., Cornell University.

Ibrahim S. Sadek, *Assistant Professor of Mathematical Sciences*, B.Sc., M.Sc., Middle East Technical University; Ph.D., University of California at Santa Barbara.

Shiva Kumar Saksena, *Assistant Professor of Mathematical Sciences*, B.S., M.S., Agra University, India; M. Stat., Indian Statistical Institute; Ph.D., Louisana Tech University.

Richard J. Sanders, *Assistant Professor of Psychology*, B.A., University of California at Santa Barbara; M.Phil., Ph.D., Columbia University.

Rebecca Shields Sawyer, *Assistant Professor of Accountancy*, B.S., North Carolina State University; M.B.A., Duquesne University; CPA.

Yousry Sayed, *Associate Professor of Chemistry*, B.S., M.S., Cairo University; Ph.D., University of Minnesota.

John H. Scalf, Jr., *Professor of Sociology*, B.A., M.A., Stetson University; M.Div., Southeastern Baptist Theological Seminary; Ph.D., University of Kentucky.

Mark E. Scalf, *Lecturer in Physical Education,* B.A., University of North Carolina at Wilmington; M.A., University of North Carolina at Chapel Hill.

Walter Thomas Schmid, *Associate Professor of Philosophy and Religion,* B.A., M.Phil., Ph.D., Yale University.

William Schneider, *Associate Professor of History,* B.A., Stanford University; M.A., Duquesne University; Ph.D., University of Pennsylvania.

Lee Schweninger, *Assistant Professor of English,* B.A., University of Colorado; M.A., University of Connecticut at Storrs; Ph.D., University of North Carolina at Chapel Hill.

David G. Seiple, *Lecturer in English,* B.S., Thiel College; M.A., Edinboro State College; Ed.D., East Texas State University.

Jo Ann M. Seiple, *Associate Professor of English,* B.S., M.A., Ed.D., East Texas State University.

Thomas Howard Shafer, *Assistant Professor of Biology,* B.S., Duke University; M.S., Ph.D., Ohio State University.

Earl Sheridan, *Assistant Professor of Political Science,* B.A., Appalachian State University; M.A., Ph.D., University of Tennnessee.

Lee M. Sherman, *Associate Professor of Management,* B.S., University of Maryland; M.B.A., American University; D.B.A., George Washington University.

David R. Shevach, *Assistant Professor of Social Work,* B.A., Harvard College; MSW, University of Iowa; M.A., Ph.D., University of California at San Diego.

Gerald H. Shinn, *Professor of Philosophy and Religion,* A.B., M.Th., Ph.D., Duke University. Danforth Associate.

David J. Sieren, *Professor of Biology,* B.A., Northland College; M.S., Ph.D., University of Illinois.

Henry Pate Singletary, *Adjunct Professor of Medical Technology,* B.S., M.D., Northwestern University.

Ronald K. Sizemore, *Associate Professor of Biology,* B.S., Wake Forest University; M.S., University of South Carolina; Ph.D., University of Maryland.

Douglas D. Smith, *Professor of Mathematical Sciences,* B.S., M.A., University of Illinois; Ph.D., Pennsylvania State University.

Sister Mary Matthew Snow, *Adjunct Lecturer in Medical Technology,* B.A., University of Maine; M.A.T., University of North Carolina at Chapel Hill; MT (ASCP).

Robert F. Soots, *Adjunct Associate Professor of Biology,* B.S., M.S., Ph.D., North Carolina State University.

Kenneth W. Spackman, *Associate Professor of Mathematical Sciences,* B.S., Pennsylvania State University; M.S., Ph.D., University of Colorado.

Jackson Gillen Sparks, *Professor of French,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Dennis J. Sporre, *Associate Professor of Drama,* B.A., Central Michigan University; M.A., University of Iowa.

Michael Spyrou, *Assistant Professor of Geography,* B.A., Cyprus College; M.A., Ph.D., University of Oregon.

Inge Bjerre Stites, *Lecturer in French and German,* Studentereksamen, Lyngby Statsskole; graduate study, Universite de Strasbourg.

John Lemacks Stokes, III, *Professor of English,* A.B., Pfeiffer College; B.D., Emory University; Ph.D., Drew University.

Doretha McKnight Stone, *Assistant Professor of Nursing,* B.S.N., Winston-Salem State University; M.S.N., University of North Carolina at Greensboro.

Sally Sullivan, *Assistant Professor of English,* B.A., M.A., Ph.D., University of North Carolina at Greensboro.

Frank J. Swartz, *Adjunct Professor of Biology,* B.S., M.S., Ph.D., University of Pittsburg.

Doug W. Swink, *Associate Professor of Drama,* B.S., Davidson College; M.A., East Carolina University; graduate study, University of North Carolina at Chapel Hill.

Carole Ellsworth Tallant, *Associate Professor of Communication,* A.B., M.A., University of North Carolina at Chapel Hill; Ph.D., Louisiana State University.

Lana D. Taylor, *Lecturer and Assistant Reference Librarian,* B.A., University of North Carolina at Wilmington; MLIS, North Carolina Central University.

Paul A. Thayer, *Professor of Geology,* B.A., Rutgers University; Ph.D., University of North Carolina at Chapel Hill.

Terry Theodore, *Professor of Drama,* B.A., Wayne State University; M.A., University of Southern California; Ph.D., University of Michigan.

Carol Chase Thomas, *Assistant Professor of Education,* B.A., University of Kentucky; M.Ed., The Citadel; Ed.D., University of Kentucky.

Patricia G. Tjaden, *Assistant Professor of Criminal Justice,* B.A., M.A., Ph.D., University of Colorado.

Robert Brent Toplin, *Professor of History,* B.S., Penn State University; M.A., Ph.D, Rutgers University.

James A. Tribbett, *Lecturer in Physical Education,* B.S., Florida State University; M.A. DePauw University.

Frank Patrick Trimble, *Lecturer in Speech Communicaton,* B.A., M.A., Southern Illinois University.

Jack Thorne Turner, *Professor of Marketing,* B.S., M.A., West Virginia University; D.B.A., Indiana University.

Larry Winfield Usilton, III, *Associate Professor of History,* B.A., M.A., Ph.D., Mississippi State University.

Richard C. Veit, *Associate Professor of English,* B.A., University of Notre Dame; M.A., Ph.D., University of Iowa.

Gilbert L. Voss, *Adjunct Research Professor in Biological Oceanography,* B.S., M.S., University of Miami; Ph.D., George Washington University.

William Morgan Wadman, *Associate Professor of Economics,* B.A., M.S., Brigham Young University; Ph.D., Claremont Graduate School.

William H. Wagoner, *Professor of Education and Lecturer in Political Science,* A.B., Wake Forest University; M.A., East Carolina University; Ph.D., University of North Carolina at Chapel Hill.

John Lewis Walker, III, *Associate Professor of English,* A.B., University of Virginia; M.A., University of California-Berkeley; Ph.D., University of Virginia.

Kathy Le Mons Walker, *Lecturer in History,* B.A., M.A., Florida State University; graduate study, University of California, Los Angeles.

Charles Richard Ward, *Assistant Professor of Chemistry,* B.S., Manchester College; M.S., Ph.D., Purdue University.

Mary M. Wasson, *Lecturer in English,* A.B., University of North Carolina at Chapel Hill; M.A., University of North Carolina at Greensboro.

Alan Douglas Watson, *Professor of History,* B.A., Duke University; M.A., East Carolina University; Ph.D., University of South Carolina.

Barbara F. Waxman, *Assistant Professor of English,* B.A., Douglass College, Rutgers University; M.A., City College of New York; Ph.D., City University of New York.

William David Webster, *Assistant Professor of Biology,* B.S., University of North Carolina at Wilmington; M.S., Michigan State University; Ph.D., Texas Tech University.

Steven Michael Weiss, *Assistant Professor of Speech Communication,* B.A., M.A., Ph.D., Temple University.

Betty Jo Hyde Welch, *Associate Professor of Speech Communication,* B.S., M.A., Middle Tennessee State College; Ed.S., George Peabody College; Ph.D., Vanderbilt University.

Charles Lewis Wells, *Adjunct Professor of Medical Technology,* B.S., Allegheny College; M.D., University of Pittsburg.

Michael D. Wentworth, *Assistant Professor of English,* B.A., University of Kansas; M.A., Eastern Michigan University; Ph.D., Bowling Green State University.

Charles W. West, Jr., *Associate Professor of Management,* B.E.E., M.B.A., Cornell University; Ph.D., The University of Louisville.

Kenneth L. Whipkey, *Associate Professor of Mathematical Sciences,* A.B., M.A., Kent State University; M.S., University of Evansville; Ph.D., Case-Western Reserve University.

Joan D. Willey, *Professor of Chemistry,* B.S., Duke University; Ph.D., Dalhousie University.

John Taylor Williams, Jr., *Professor of Psychology,* B.A., University of Texas at Arlington; M.A., Ph.D., University of Florida.

Cecil L. Willis, *Associate Professor of Criminal Justice,* B.S., East Tennessee University; M.S., East Carolina University; Ph.D., Virginia Polytechnic Institute and State University.

William Walton Woodhouse, III, *Associate Professor of Spanish,* A.B., University of North Carolina at Chapel Hill; M.A., Ph.D., University of Wisconsin.

Eleanor Boyd Wright, *Assistant Professor of Education,* A.B., Greensboro College; M.A., State University of New York, College of Geneseo; Ph.D., University of North Carolina at Chapel Hill.

Joanna Ennis Wright, *Lecturer and Assistant Reference Librarian,* B.A., East Carolina University; M.L.S., University of North Carolina at Chapel Hill.

Charles G. Yarbrough, *Adjunct Associate Professor of Biology,* B.S., M.A., Wake Forest University; Ph.D., University of Florida.

John Zeko, *Assistant Professor of Accountancy,* A.B., University of North Carolina at Chapel Hill; M.P.A., Georgia State University; CPA.

G. Frank Yelverton, *Adjunct Research Associate in Biology,* B.S., University of North Carolina at Chapel Hill; M.S., University of North Carolina at Wilmington.

Victor A. Zullo, *Professor of Geology and Adjunct Professor of Biology,* B.A., M.A., Ph.D., University of California at Berkeley.

RETIRED FACULTY

***Franklin H. Allen, M.S. (1956-1981),** *Associate Professor of Biology*

***Joseph C. Awkard, Jr., Ed.D. (1979-1985),** *Professor of Psychology*

***Anne Barksdale, M.S. (1957-1966),** *Assistant Professor of Business*

Luetta Navada Booe, M.S. (1965-1975), *Professor of Nursing*

Samuel Tinsley Chambers, Ph.D. (1964-1976), *Professor of History*

***James Marshall Crews, Ed.D. (1948-1981),** *Professor of Mathematical Sciences*

Henry G. Crowgey, Ph.D. (1967-1981), *Professor of History*

***Derick G.S. Davis, M.S. (1971-1983),** *Assistant Professor of Recreation*

***Will Scott DeLoach, Ph.D. (1963-1967),** *Professor of Chemistry*

***Jack Dermid (1962-1985),** *Associate Professor of Biology*

Joseph F. Dunn, M.Ed. (1968-1980), *Assistant Professor of Business Administration*

Anne Mackie Fitzgibbon (1965-1985), *Assistant Professor of Drama*

***Antolin Gonzalez-del-Valle, Ph.D. (1964-1976),** *Professor of Spanish*

***Helen Hagan, M.L.S. (1964-1974),** *Director of Library Services*

***B. Frank Hall, Th.D. (1963-1979),** *Professor of Philosophy and Religion*

Vicente Nestor Hernandez (1963-1985) *Associate Professor of Mathematical Sciences*

***Claude F. Howell, H.H.D. (1953-1980),** *Associate Professor of Art*

***Adrian D. Hurst, M.A. (1947-1968),** *Associate Professor of Mathematics*

***Mildred Johnson, M.A. (1947-1960),** *Professor of Social Sciences*

Ruby Bame Knox, M.Ed. (1962-1978), *Assistant Professor of Business*

***Glenn Richard Long, M.A. (1966-1983),** *Assistant Professor of Mathematical Sciences*

***Margaret Shannon Morton, M.A. (1947-1965),** *Professor of English*

J. Paul Reynolds, Ph.D. (1964-1971), *Vice Chancellor for Academic Affairs*

***Eloise Scott, M.A. (1968-1976),** *Assistant Professor of Mathematical Sciences*

***Betty Holden Stike, M.A. (1964-1983),** *Assistant Professor of Education*

David E. Warner, M.Ed. (1965-1979), *Associate Professor of Health, Physical Education and Recreation*

***E. M. West, Ed.D (1963-1981),** *Professor of Business Administration*

Mary Alice Whitfield, M.S., (1965-1979), *Assistant Professor of Nursing*

**Emeritus status*

INDEX

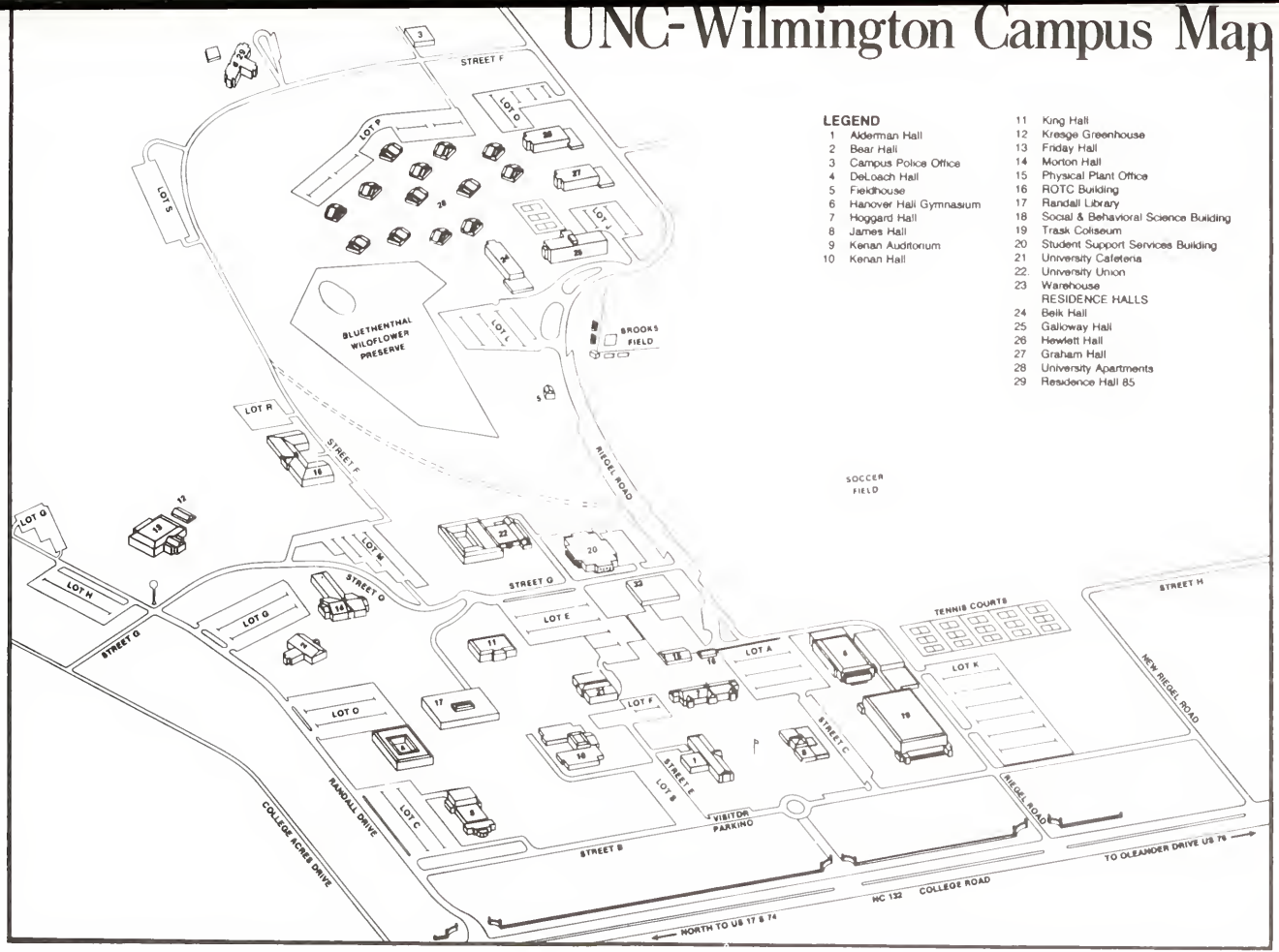
Academic Affairs 56
  Advisors 56
  Honor Code 57
  Probation 59
  Programs 64
  Regulations 56
  Suspension 59
Accountancy 183-186
Accreditation 13
Administrative officers and staff 7
Admissions 20
  Former students 22
  Freshmen 20
  Graduate 228
  High school students 23
  International students 23
  Notification of acceptance 20
  Nursing program 22, 207
  Senior citizens 24
  Special students 23
  Summer visitors 23
  Transfer students 21
  Three-year rule 22
  Unclassified students 22
Adult education program 224
Advanced placement 56
Agriculture, preprofessional program 218
American Indian Student Legislative Grant 34
Anthropology 170-174
Application dates 20
Application fee 21
Areas of study 64
Army ROTC 146-147, 223
Art 86-89
Art exhibitions 52
Athletics 51
Attendance regulations 59
Auditing courses 58
Awards 53-54
Bachelor of Arts degree 64
Bachelor of Science degree 64
Basic studies requirements 67-69
Biological Sciences 71-79
Board of Governors 10
Board of Trustees 12
Buildings 15-16
Business Administration, Cameron School of,
  Admissions requirements 183
  Degrees, concentrations 183
Business Management
  Courses 190-193
Calendar of events 5-6
Campus 15
Campus map 285
Career Planning and Placement ... 42
Change of name or address 62
Chemistry 79-83
Class attendance 59
Classification of students 59
Clubs and organizations 51
College of Arts and Sciences 71
Computer Science 135-139
Continuing Education 224
Correspondence credit 56
Course descriptions 70
Creative Arts 86
  Art 86-89
  Drama 89-92
  Music 92-100
  Speech Communication ... 100-103
Credit 56
  Correspondence 56
  Transfer 56
Criminal Justice 174-176
Curricular Studies 195
Dean of Students Office 42
Dean's list 57
Debate team 52
Deficiencies 59
Degrees offered 64
  Areas of study 64
  General requirements 67-69
  Requirements for second degree 62
Dentistry, preprofessional program 220
Directed individual study 70
Directory information 44
Dismissal 59
Disruption of educational process 44
Dormitories 16
Drama 89-92
Earth Sciences 103
Economics and Finance 186-190
Education, School of 195
  Admissions requirements 66
  Courses 201-206
  Degrees, concentrations 196-200

Educational Design and Management 195
Employment 38
Engineering 111-112
English 112-119
Environmental Studies 119-121
Examinations
  Admissions 20
  Advanced placement 56
  Final examinations 59
Exemptions 56
Expenses 28
Extension program 224
Faculty 264-279
Fees
  Application 21
  Graduate 230
  Graduation 28
  Late registration 28
Field experience in biology 223
Final examinations 59
Financial Aid 34
  Undergraduate 34
  Graduate 233
Food service 43
Forensics team 52
Foundation Chair 14
French 148-150
Freshmen 20
  Admissions 20-21, 25
  Orientation 56
  Registration 56
General College Advising Program 65
General degree requirements 67-69
Geography 103-107
Geology 107-110
German 152
Grade appeals 58
Grading 57
Graduate studies 228
  Adding, dropping, withdrawing 235
  Admissions requirements 228
    General 228
    Master of Business Administration 229
    Master of Education 229
    Master of Science 230
  Application for admission to candidacy and the degree 237
  Course credit 234
  Degree time limits 237
Graduate Studies (continued)
  Examination, comprehensive 236
  Foreign language requirement 237
  Financial aid 233
  Graduate grading 235
  Master of Business Administration 229, 237
    Course descriptions ... 239-243
    Accountancy 239
    Business Management .. 240-241
    Economics 241
    Finance 242
    Marketing 242-243
    Degree requirements 238
  Master of Education 229, 243
    Course descriptions 247-254
    Degree requirements 243-247
    Educational Administration and Supervision Program . 246-247
      Administrative Track 247
      Supervision Track 247
  Elementary Education Program 243-244
    Early Childhood Track 243
    Intermediate Track 244
  Reading Education Program 245
  Special Education Program 246
Master of Science in Marine Biology 230, 254
Course descriptions 255-261
Degree requirements 254
Tracks
  Biological Oceanography 255
  Coastal Biology 255
  Marine Biology 254
  Minority Presence Grant Program 233
  On-campus living 231
  Procedure for protest of grade 236
  Refunds 232
  Registration 234
  Residence credit computation 236
  Residency status for tuition payment 232
  Summer session 231
  Thesis 237
  Tuition and fees 230
  Veterans educational benefits 233

Withdrawal 235
Graduation 28, 61
Application 61
Fee 28
Requirements 61
With distinction 62
Grants 34
Health examination 69
Health Insurance 44
Health, Physical Education and Recreation 121-128
Health services 43
History 128-135
History of UNCW 12
Honor Code 57
Honor societies 43
Honors Program 60
Housing 43
Humanities area requirements 65
Incomplete grades 57
Indebtedness 62
Information Center 50
In-state status for tuition 28
Institute for Marine Biomedical Research 222
Insurance, student health 44
International students 23
Law, preprofessional program 219
Library 16
Loans 38-39
Majors, areas of study 64
Major, double 61
Management and Marketing 190-194
Marine Biology 72
Graduate 230, 254
Marine Science Research 222
Marketing 193-194
Mathematical Sciences 135-145
Meals 29
Medical services 43
Medical Technology 216-218
Medicine, preprofessional program 220
Military Science 146-147
Minority presence grant program 34
Modern Languages 147-153
Music 93-100
Musical organizations 51-52
Natural science requirements 68
Nondiscrimination Policy 24
Nursing program 207-215
Off-campus courses 58
Office of Special Programs 223
On-campus living 29
Organizations and clubs 51
Orientation 56
Out-of-state status for tuition 28
Parks and Recreation Management 125
Payments 28
Pharmacy, preprofessional program 221
Philosophy and Religion 153-158
Physical Education 121-128
Physics 84-86
Placement service 42
Political Science 159-163
Portuguese 153
Postal Services 50
Preprofessional programs 218
Agriculture 218
Dentistry 220
Engineering 219
Forestry 218
Law 219
Medicine 220
Pharmacy 221
Veterinary Medicine 221
Preregistration 56
Probation, academic 59-60
Professional programs 216
Medical Technology 216-218
Nursing 218
Teacher Education 218
Psychology 164-169
Publications, student 51
Readmission 59
Recreation courses 125-128
Refunds 29
Registration 56
Religion 156-158
Repeating of courses 58
Residence status for tuition 30
Requirements
Admission 20, 21
Basic studies 67-69
Double major 61
Graduation 61
Physical Education 69
Retention 59
Second degree 62
Residence Life Program 43
Retention chart 60
ROTC, See Military Science
Safety and health program 24
Scholarships 35

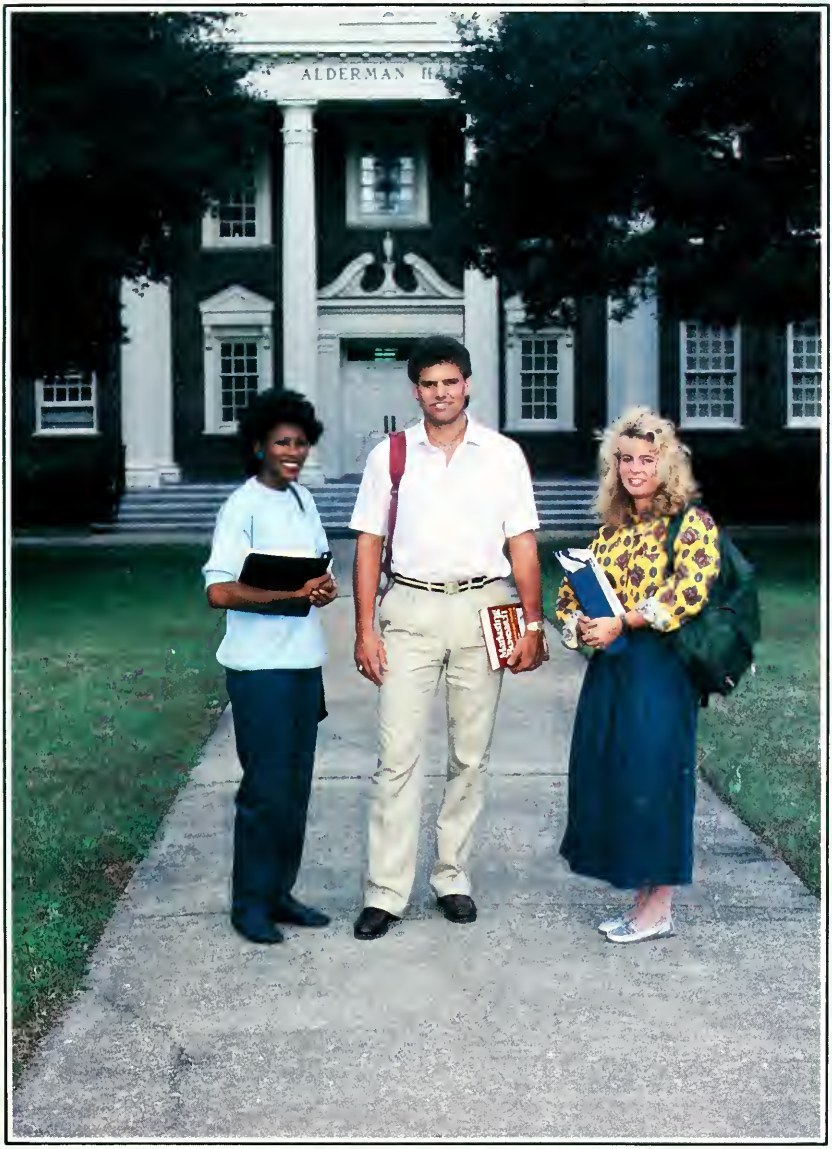
School of Business Administration, Cameron 66, 183, 237
School of Education 66, 195, 243
School of Nursing 67, 207
Second degree requirements 62
Senior citizens 24
Social Science 169
Social Work 176-178
Sociology and Anthropology 170-182
Spanish 150-152
Special Education 200
Special programs 221
Army ROTC program 223
Continuing Education 224
Environmental Studies 222
Extension 224
Field Experience in Biology ... 223
Institute for Marine Biomedical Research 222
Marine Biology curriculum 221
Marine Science Research 222
Office of Special Programs 223
Special students 23
Speech Communication 100-103
Statistics 144-145
Student Activities Office 50
Student Affairs 42
Student conduct 44
Student Development Center 42
Student Government Association 50
Student Health and Wellness Center 43
Student life 50-54
Student Organizations 51
Summer school 223
Suspension 59
Teacher Education Program 218
Teaching Excellence Award 14
Thesis 237
Three-year rule 22
Transcripts 62
Transfer students 21
Admission 21
Credit 22
Trial courses 70
Tuition and fees 28
Unclassified students 22
Admission 22
Definition 22
University of North Carolina 11
Board of Governors 10
General Administration Officers 10
History 11
University Program Board 51
University Readers Theatre 52
University Theatre 52
University Union 42, 50
Veterans' Affairs 40
Veterinary Medicine, preprofessional program 221
Withdrawal 58
Work programs 38

UNC-Wilmington Campus Map



UNCW
University of North Carolina
at Wilmington
601 S. College Road
Wilmington, N.C. 28403-3297

Fourth Class Book Ra



The University of North Carolina at Wilmington

1987 – 88

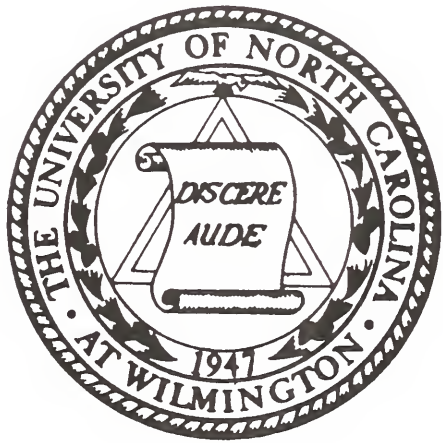
Undergraduate and Graduate CATALOGUE

The University of North Carolina at Wilmington

1987-88 Undergraduate and Graduate

Catalogue

Bulletin 39



e University of North Carolina at Wilmington is committed to equality of educational oppor-
nity and does not discriminate against applicants, students, or employees based on race, color,
tional origin, religion, sex, age, or handicap. Moreover, The University of North Carolina at
lmington is open to people of all races and actively seeks to promote racial integration by
cruiting and enrolling a larger number of black students.

TABLE OF CONTENTS

Calendar of Events....5
Administrative Officers....7
The University of North Carolina....10
The University of North Carolina at Wilmington....12
Admissions....20
Expenses....28
Financial Aid....34
Student Affairs....44
Student Life....50
Academic Regulations....58
Degree Requirements and Course Descriptions....66
Graduate Studies....234
Faculty....274
Index....292
Campus Map....296

All provisions, regulations, degree programs, course listings, etc., in effect when this catalogue went to press are subject to revision by the appropriate governing bodies of The University of North Carolina at Wilmington.

10,000 copies of this public document were printed at a cost of $13,081.00 or $1.31 per copy (G.S. 143-170.1)

B.D. Schwartz
Chairman, Board of Trustees

Dr. William H. Wagoner
Chancellor

On behalf of the Board of Trustees, we vish to extend a very warm welcome to ach and every student who has enrolled n this "University by the Sea."

You are headed for a very exciting earning experience, one that you will oroughly enjoy. Whether you pursue iberal arts, business, or science—grad- ate or undergraduate work—our faculty vill inspire as well as teach you.

This University has much to offer—its ecreational programs, its varied extra- urricular activities, and its support of ne arts. As an added attraction, its set- ng is one that includes the beaches, the ver, as well as beautiful historic Wil- nington.

We hope you will take full advantage f the many facets of our campus, and nat you will gain in friendships as well s in knowledge.

We wish you success in your endeav- rs, and happiness in your new home, The University of North Carolina at Vilmington.

Very truly yours,

B. D. Schwartz

B.D. Schwartz
Chairman, Board of Trustees

It is with a great deal of pleasure that I welcome each of you to The University of North Carolina at Wilmington. You will find that this is a friendly community of scholars, and I believe you will enjoy being a part of it as much as I do.

This campus is one of the fastest growing campuses in the University system, and we are proud of our accomplishments over the years.

The programs offered by the University are designed to serve a broad spectrum of interests in the liberal arts and sciences. Undergraduate instruction and research opportunities are provided in fine arts, humanities, natural and social sciences, teacher education and other professional disciplines. Pre-professional programs in medicine, pharmacy, engineering, forestry, dentistry, agriculture and law are also offered. Strong programs in the fine arts include studio art, drama and applied music.

Programs available through UNC-Wilmington's graduate school include several options in the School of Education, a Master of Science program for Marine Biology and a unique and innovative program leading to the degree of Master of Business Administration.

We welcome you to "UNC by the Sea"—a very special place!!

Sincerely,

William H. Wagoner

William H. Wagoner
Chancellor

1987

JANUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

OCTOBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

NOVEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

DECEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

1988

JANUARY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

MARCH

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

AUGUST

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPTEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

NOVEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

DECEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1989

JANUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

MARCH

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

APRIL

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

MAY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JUNE

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JULY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

CALENDAR OF EVENTS*
1987-88

Fall Semester, 1987

August 17, Monday	Academic Year Begins
August 19, Wednesday	On-campus housing opens
August 19, Wednesday	Graduate Registration
August 20-21, Thursday-Friday	Orientation and advising
August 24, Monday	Registration
August 25, Tuesday	Classes begin
August 31, Monday	Last day to drop or add without a grade
September 7, Monday	Labor Day Holiday
September 17, Thursday	Faculty meeting
October 6, Tuesday	Last day to withdraw with W – undergraduate students
October 7, Wednesday	Fall vacation begins 10:30 p.m.
October 12, Monday	Fall vacation ends 8:00 a.m.
October 27, Tuesday	Graduation application deadline – Spring 1988
November 9, Monday	Last day to withdraw with a WP – graduate students
November 24, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 30, Monday	Thanksgiving vacation ends 8:00 a.m.
December 9, Wednesday	Last day of classes
December 10, Thursday	Reading Day – Evening Exam
December 11-12, Friday-Saturday	Final examinations
December 14-18, Monday-Friday	Final examinations
December 18, Friday	Fall Semester ends/on-campus housing closes

Spring Semester, 1988

January 6, Wednesday	On-campus housing opens
January 7, Thursday	Orientation and advising
January 8, Friday	Registration
January 11, Monday	Classes begin
January 15, Friday	Last day to drop or add without a grade
January 18, Monday	Martin Luther King Holiday
February 22, Monday	Last day to withdraw with W – undergraduate students
March 4, Friday	Spring vacation begins 10:30 p.m.
March 14, Monday	Spring vacation ends 8:00 a.m.
March 18, Friday	Graduation application deadline, Summer 1988
March 30, Wednesday	Last day to withdraw with WP – graduate students
April 1, Friday	Easter vaction begins 10:30 p.m.
April 5, Tuesday	Easter vacation ends 8:00 a.m.
April 14, Thursday	Faculty meeting
April 27, Wednesday	Last day of classes
April 28, Thursday	Reading Day – First Evening exam
April 29-30, Friday-Saturday	Final examinations
May 2-6, Monday-Friday	Final examinations
May 6, Friday	Spring Semester ends/on-campus housing closes
May 14, Saturday	Commencement
May 16, Monday	Academic Year Ends

Summer Session, 1st, 1988

May 19, Thursday	On-campus housing opens
May 20, Friday	Registration
May 23, Monday	Classes begin; last day for registration
May 25, Wednesday	Last day to drop without a grade
June 2, Thursday	Last day to withdraw with W – undergraduate students
June 10, Friday	Last day to withdraw with WP – graduate students
June 21, Tuesday	Graduation application deadline – Fall 1988
June 22, Wednesday	Final Examinations; term ends

Summer Session, 2nd, 1988

June 26, Sunday	On-campus housing opens
June 27, Monday	Registration
June 28, Tuesday	Classes begin; last day for registration
June 30, Thursday	Last day to drop without a grade
July 4, Monday	Holiday
July 11, Monday	Last day to withdraw with W – undergraduate students
July 19, Tuesday	Last day to withdraw with WP – graduate students
July 29, Friday	Final examinations; term ends

*Calendar may be adjusted due to State legislative action.

CALENDAR OF EVENTS*
1988-89

Fall Semester, 1988

August 15, Monday	Academic Year Begins
August 20, Saturday	On-campus housing opens for new students
August 21, Sunday	On-campus housing opens for returning students
August 22-23, Monday-Tuesday	Orientation and advising
August 24, Wednesday	Registration
August 25, Thursday	Classes begin
August 31, Wednesday	Last day to drop or add without a grade
September 5, Monday	Labor Day Holiday
September 15, Thursday	Faculty Meeting
October 6, Thursday	Last day to withdraw with W – undergraduate students
October 12, Wednesday	Fall vacation begins 10:30 p.m.
October 17, Monday	Fall vacation ends 8:00 a.m.
October 27, Thursday	Graduation application deadline, Spring 1989
November 9, Wednesday	Last day to withdraw with WP – graduate students
November 22, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 28, Monday	Thanksgiving vacation ends 8:00 a.m.
December 9, Friday	Last day of classes
December 10, Saturday	Reading Day
December 12-17, Monday-Saturday	Final examinations
December 19-20, Monday-Tuesday	Final examinations
December 20, Tuesday	Fall semester ends/on-campus housing closes

Spring Semester, 1989

January 4, Wednesday	On-campus housing opens for new students
January 5, Thursday	Orientation and advising
January 5, Thursday	On-campus housing opens for returning students
January 6, Friday	Registration
January 9, Monday	Classes begin
January 13, Friday	Last day to drop or add without a grade
January 16, Monday	Martin Luther King Holiday
February 17, Friday	Last day to withdraw with W – undergraduate students
February 24, Friday	Graduation application deadline, Summer 1989
March 3, Friday	Spring vacation begins 10:30 p.m.
March 13, Monday	Spring vacation ends 8:00 a.m.
March 24, Friday	Easter vacation begins 10:30 p.m.
March 28, Tuesday	Easter vacation ends 8:00 a.m.
March 28, Tuesday	Last day to withdraw with WP – graduate students
April 6, Thursday	Faculty meeting
April 25, Tuesday	Last day of classes
April 26, Wednesday	Reading Day
April 27-29, Thursday-Saturday	Final examinations
May 1-5, Monday-Friday	Final examinations
May 5, Friday	Spring semester ends/on-campus housing closes
May 13, Saturday	Commencement
May 15, Monday	Academic Year Ends

Summer Session, 1st, 1989

May 18, Thursday	On-campus housing opens
May 19, Friday	Registration
May 22, Monday	Classes begin
May 23, Tuesday	Last day for registration
May 24, Wednesday	Last day to withdraw without a grade
May 31, Wednesday	Last day to withdraw with a W – undergraduate students
June 9, Friday	Last day to withdraw with WP – graduate students
June 20, Tuesday	Last day of classes
June 21, Wednesday	Final examinations; term ends

Summer Session, 2nd, 1989

June 25, Sunday	On-campus housing opens
June 26, Monday	Registration
June 27, Tuesday	Classes begin
June 28, Wednesday	Last day for registration
June 29, Thursday	Last day to drop or add without a grade
July 4, Tuesday	Holiday
July 7, Friday	Last day to withdraw with W – undergraduate students
July 18, Tuesday	Last day to withdraw with WP – graduate students
July 28, Friday	Final examinations; term ends

*Calendar may be adjusted due to State legislative action.

ADMINISTRATIVE OFFICERS OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

William H. Wagoner, Ph.D. ..... *Chancellor*
George E. Bair, Ph.D. ..... *Special Assistant to the Chancellor*

ACADEMIC AFFAIRS

Charles L. Cahill, Ph.D. ..... *Provost and Vice Chancellor for Academic Affairs*
James K. McGowan, Ph.D. ..... *Associate Vice Chancellor for Academic Affairs - Director of Graduate Studies*
Paul E. Hosier, Ph.D. ..... *Assistant Vice Chancellor for Computer and Information Systems*
David K. Miller, Ph.D. ..... *Assistant Vice Chancellor for Academic Affairs*
Daniel B. Plyler, Ph.D. ..... *Dean, College of Arts and Sciences*
Norman R. Kaylor, Ph.D. ..... *Dean, Cameron School of Business Administration*
Roy E. Harkin, Ph.D. ..... *Dean, School of Education*
Marlene M. Rosenkoetter, Ph.D. ..... *Dean, School of Nursing*
James F. Merritt, Ph.D. ..... *Acting Director of Institute for Marine Biomedical Research*
Eugene W. Huguelet, M.L.S. ..... *Director of Library Services*
John J. Manock, Ph.D. ..... *Director of Research Administration*
James C. Edmundson, Ed.D. ..... *Director of Special Programs*
Dorothy P. Marshall, B.S. ..... *Registrar*
Diane M. Zeeman, M.A. ..... *Director of Undergraduate Admissions*
Catherine C. Cleare, Ph.D. ... *Director of Mathematics and Science Education Center*

BUSINESS AFFAIRS

R. O. Walton, Jr., B.A ..... *Vice Chancellor for Business Affairs*
J. Carl Dempsey, M.Ed. ..... *Associate Vice Chancellor for Business Affairs*
Charles W. King, M.A. ..... *Assistant Vice Chancellor for Business Affairs - Business*
Timothy A. Jordan, M.B.A. ..... *Assistant Vice Chancellor for Business Affairs - Finance*
Tammy E. Blizzard, B.S. ..... *Director of Accounting*
Margaret T. Robison, M.Ed. ..... *Director of Auxiliary Services*
Nikki S. Howard, B.S., CPA ..... *Director of Internal Auditing*
William R. Calloway, M.P.A. ..... *Director of Personnel Services*
Roger E. Fry, B.S.C.E., P.E. ..... *Director of Physical Plant Services*
Joseph M. Johnson, Jr., B.S. ..... *Director of Public Safety*
Charles L. Sanders, III, C.P.M. ..... *Director of Purchasing Services*
Suzanne Bulla, B.S. ..... *Director of Systems and Budget*

STUDENT AFFAIRS

William A. Bryan, Ed.D. ..... *Vice Chancellor for Student Affairs*
Richard H. Mullendore, Ph.D ..... *Associate Vice Chancellor for Student Affairs*
David F. Allen, Ph.D. ..... *Special Assistant to Vice Chancellor for Student Affairs*
Joseph V. Capell, M.Div. ..... *Director of Financial Aid*
Diane L. McKinstry, Ph.D. ..... *Director of Student Development Center*
Linda Moore, M.Ed. ..... *Director of University Union*
Catherine Vangellow, M.P.H. ..... *Director of Student Health and Wellness Center*

UNIVERSITY ADVANCEMENT

F. Douglas Moore, Ed.D. ..... *Vice Chancellor for University Advancement*
M. Tyrone Rowell, M.A. ..... *Associate Vice Chancellor for University Advancement*
W. Frank Bowen, M.A.Ed. ..... *Director of Alumni/Parents Program*
Mary W. Cunningham, M.A. ..... *Director of University Relations*
Renée R. Brantley, A.B.J. ..... *Director of Publications*

SUPPORTING SERVICES

William J. Brooks, M.S. ..... *Director of Athletics*
Robert E. Fry, M.S.P.H. ..... *Director of Institutional Research*
Ralph H. Parker, M.Ed. ..... *Director of Minority Affairs*
Isabell L. Foushee, M.A. ..... *Federal Compliance Officer*

THE UNIVERSITY

THE UNIVERSITY OF NORTH CAROLINA

SIXTEEN CONSTITUENT INSTITUTIONS

C. D. Spangler, Jr., B.S., M.B.A., D.H.L., LL.D. ..... *President*
Raymond H. Dawson, B.A., M.A., Ph.D. ..... *Vice President-Academic Affairs*
Roy Carroll, B.A., M.A., Ph.D. ..... *Vice President-Planning*
Lloyd V. Hackley, B.A., Ph.D. ..... *Vice President-Student Services and Special Programs*
L. Felix Joyner, A.B. ..... *Vice President-Finance*
Jasper D. Memory, B.S., Ph.D. ..... *Vice President-Research and Public Service*
Wyndham Robertson, A.B. ..... *Vice President-Communications*
Jay M. Robinson, B.S., M.A., Ed.D. ..... *Vice President-Public Affairs*
John P. Kennedy, S.B., B.R., M.A., J.D. ..... *Secretary of the University*
Richard H. Robinson, Jr., A.B., LL.B. ..... *Assistant to the President*
John W. Dunlop, B.A. ..... *Director, The University of North Carolina Center for Public Television*

BOARD OF GOVERNORS
THE UNIVERSITY OF NORTH CAROLINA

Philip G. Carson, Chairman
Jacob H. Froelich, Jr., Vice Chairman
Mrs. Geneva J. Bowe, Secretary

Class of 1987

B. Irvin Boyle
Mrs. Terresa Thomas Bullock
William A. Dees, Jr.
Jacob H. Froelich, Jr.
James E. Holshouser, Jr.
William A. Johnson
Robert L. Jones
E. B. Turner

Class of 1989

Mrs. Geneva J. Bowe
Philip G. Carson
Walter R. Davis
R. Phillip Haire
Mrs. Julia Taylor Morton
Asa T. Spaulding, Jr.
David J. Whichard, II
William K. Woltz

Class of 1991

Irwin Belk
Wayne A. Corpening
J. Earl Danieley
Mrs. Joan S. Fox
John R. Jordan, Jr.
Samuel H. Poole
J. Aaron Prevost
Louis T. Randolph

Class of 1993

Roderick D. Adams
Charles Z. Flack, Jr.
John A. Garwood
Reginald F. McCoy
Mrs. Martha F. McNair
D. Samuel Neill
Maceo A. Sloan
Ms. Ruth Dial Woods

HISTORY OF THE UNIVERSITY

The University of North Carolina is comprised of all the public institutions of higher education in North Carolina that confer degrees at the baccalaureate level or higher. The University was authorized by the State Constitution in 1776, and it was chartered in 1789 by the General Assembly.

The University of North Carolina opened its doors to students at Chapel Hill in 1795. Thereafter, beginning in the latter part of the nineteenth century, the General Assembly of North Carolina has established and supported fifteen other public senior institutions in keeping with Article IX, Section 8, of the Constitution of North Carolina which provides that the "General Assembly shall maintain a public system of higher education, comprising The University of North Carolina and such other institutions of higher education as the General Assembly may deem wise."

By 1969, The University of North Carolina included six constituent institutions, governed by a single Board of Trustees. This multi-campus University had its beginnings in legislation enacted in 1931 that defined The University of North Carolina to include The University of North Carolina at Chapel Hill, North Carolina State University at Raleigh, and The University of North Carolina at Greensboro. In the 1960's three additional campuses were added: The University of North Carolina at Charlotte, The University of North Carolina at Asheville, and The University of North Carolina at Wilmington.

Beginning in 1877, the General Assembly of North Carolina established or acquired seven additional separately governed state- supported senior institutions of higher education. They are: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. Then, in 1971, the General Assembly redefined The University of North Carolina, and under the terms of that legislation all sixteen public senior institutions became constituent institutions of The University of North Carolina.

The constitutionally authorized Board of Trustees of the six campus University of North Carolina was designated the Board of Governors and this body is by law The University of North Carolina. The Board of Governors consists of thirty-two members elected by the General Assembly, and it is charged with "the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." The chief executive officer of The University is the President.

Each constituent institution of The University has its own faculty and student body. The chief administrative officer of each institution is the chancellor, and the chancellors are responsible to the President.

Each constituent institution also has a board of trustees composed of thirteen members: eight elected by the Board of Governors, four appointed by the Governor, and the elected president of the student body *ex officio*. (The School of the Arts has two additional *ex officio* trustees.) The principal powers of these institutional boards are exercised under a delegation of authority from the Board of Governors.

BOARD OF TRUSTEES
THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

B. D. Schwartz, Chairman
F. P. Fensel, Vice Chairman
Mrs. Betty H. Cameron, Secretary

Class of 1987

Mrs. Betty H. Cameron
W. Albert Corbett
F. P. Fensel
Bishop Ruben L. Speaks
John D. Warlick, Jr.
Eugene E. Wright, Jr.

Class of 1989

John J. Burney, Jr.
John B. Codington
Mrs. Margaret F. Heyward
John D. Merritt
Justin Raphael
B. D. Schwartz

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington College, a locally supported and governed institution, to provide the youth and adults of New Hanover County and Southeastern North Carolina an opportunity for two years of university parallel study, semiprofessional training and vocational-technical education at moderate expense. From these beginnings and goals and through a series of transformations with ever-widening programs and aspirations, in 1969 it became a constituent institution of The University of North Carolina, whose purpose, resources, and direction it shares.

The University of North Carolina at Wilmington is a community of scholars dedicated to teaching, learning, creating, and extending knowledge through research. Its objectives are to stimulate curiosity, imagination, and creativity; to communicate both general knowledge and the facts and concepts particular to various disciplines and professional programs; to foster clear thinking, rational decision-making, and fluent, accurate communication; and to develop skills appropriate to the various disciplines and professional programs.

The programs offered by the University include four-year programs leading to the Bachelor of Arts and Bachelor of Science degrees within the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing; graduate programs leading to the Master of Education, the Master of Science, and the Master of Business Administration degrees; a variety of pre-professional programs; and special programs in a variety of areas, including Marine Science Research, Army ROTC, and Continuing Education. The University's recent development has made possible increasingly diverse contributions, some of international significance. Its aim is to continue and to improve its innovative programming and comprehensive approach to meeting the wide-ranging needs of the region, the state, and the larger community.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the North Carolina College Conference and under the administration of the Directorate of Extension of The University of North Carolina at Chapel Hill. The center offered courses on the freshman level to some 250 students

during the academic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution under the control of the New Hanover County Board of Education. In 1948 Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952 the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree.

By vote of the Board of Trustees of The University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state- supported senior institutions into the university. Thus The University of North Carolina now comprises 16 institutions.

On August 22, 1977, the Board of Governors of The University of North Carolina authorized The University of North Carolina at Wilmington to offer its first graduate programs at the master's level.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association of Colleges and Schools and the North Carolina Association of Colleges and Universities. The School of Education is accredited by the National Council for Accreditation of Teacher Education. The University also holds membership in the American Assembly of Collegiate Schools of Business, the American Council on Education, the American Placement Council, and the Council for Advancement and Support of Education, and is on the list of schools approved by the American Chemical Society.

THE FACULTY

The University seeks to attract and maintain a faculty of outstanding individuals who are capable of contributing to the enrichment of its diverse and comprehensive instructional and research programs. Its faculty members come from all geographic sections of the United States and several foreign countries, bringing to this campus a rich variety of educational experiences, training and scholarship. Of the more than 336 instructional and research faculty, more than 69 percent hold doctoral degrees.

In addition to its primary responsibilities of teaching, the faculty actively engages in research and creative pursuits. Research interests are widespread in the various disciplines within the humanities, natural, physical, behavioral, and social sciences, and the professions. One of the major areas of interest is the marine sciences in which extensive research is conducted in such fields as marine biology, chemical and physical

oceanography, and coastal environments. Many of these research activities culminate in the publication of books and scholarly articles and presentation of papers at professional associations, bringing acclaim to the University as well as the faculty. Certain other faculty members are widely recognized for their outstanding achievements in the literary, visual, and performing arts.

As an outgrowth of their professional training and/or University affiliation, UNCW faculty members serve the community at large in various ways. Many participate in artistic, business, educational, governmental, religious and other professional and humanitarian activities. Inasmuch as the University is dedicated to serving its total constituency, faculty members are encouraged to serve in an educational, advisory or informational capacity to enhance the welfare of the community at large.

BOARD OF TRUSTEES' TEACHING EXCELLENCE AWARD

The Board of Trustees of The University of North Carolina at Wilmington, in recognition of this institution's commitment to teaching excellence, has established the Board of Trustees' Teaching Excellence Award. Recipients of the award manifest excellence as a way of life and stand out among the faculty as persons who have made and continue to make a significant contribution to higher education through their dedication and service to students. The award carries with it both an honor and a responsibility: it specifies a member of the faculty as a person of excellence and it calls upon the person so honored to share that excellence with colleagues and students.

THE FOUNDATION CHAIR

The Foundation of The University of North Carolina at Wilmington is a charitable, non-profit corporation established for the sole purpose of supporting the University. Through private donations it supports a faculty Chair, designated to assist the University in its long-range efforts concerning faculty development and recruitment. The Foundation Chair, which is currently allocated to the various academic disciplines on a rotating basis, enables the University to bring to this campus renowned scholars and performing artists. In filling the Chair a special effort is made to select individuals whose contributions will benefit not only the University, but also the community at large.

NOTE: For faculty directory see page 274.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state on a 650-acre tract on State Highway 132 (College Road) midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River and is about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. The standard metropolitan area, of which Wilmington is a part, now has a population in excess of 97,400. Several main highways lead into the city, and commercial air service provides easy access to other metropolitan areas north, south, and west.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious well-landscaped campus was first occupied by the University in 1961. The number of buildings has increased from three in 1961 to forty-three today. There are several athletic fields and ample space for parking.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings, as well as the cafeteria and residence halls, are completely air-conditioned.

Edwin A. Alderman Hall, which houses administrative offices, is named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University.

Hoggard Hall, an academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the School of Nursing, laboratories, the computing center, special programs, and faculty and staff offices.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the Creative Arts Department. It contains classrooms, faculty offices, art and music studios, the music library, and electronic music studio, dramatic workshops and the S.R.O. Theatre. It also contains an auditorium with a seating capacity of approximately 100.

Will S. DeLoach Hall houses the department of Chemical and Physical Sciences. It is equipped with classrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped laboratories for the physical sciences.

Friday Hall, named in honor of UNC President Emeritus William C. Friday and his wife Ida, was completed in 1974. It houses the departments of Biological Sciences and Earth Sciences and contains classrooms and laboratories.

Arnold Kimsey King Hall houses the School of Education and contains an auditorium with a seating capacity of 191, classrooms, faculty offices, and a curriculum laboratory.

Isaac Bear Hall, completed in 1972, contains classrooms, a computer laboratory, and faculty offices for the Cameron School of Business Administration.

Morton Hall, named for Margaret Shannon Morton, was completed in October 1978 and houses the departments of English, History, Mathematical Sciences, and Modern Languages. The building contains classrooms, seminar rooms, and the Bryan Auditorium which seats 200.

The Social and Behavioral Sciences Building was completed in 1980. It houses the departments of Psychology, Philosophy and Religion, Political Science, and Sociology/Anthropology, as well as some offices of the campus computing center.

The Sarah Graham Kenan Auditorium, a gift from the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains seminar rooms for the Department of Creative Arts.

Hanover Hall and Trask Coliseum, the physical education complex, provide modern facilities for the athletic activities of all students, including a large playing floor with

rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment.

The Raiford G. Trask Health and Physical Education Building provides the campus with a 6,000 seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction was completed in the fall of 1977.

The University Union is the newest and second largest building on campus. Serving as the "living room" of the University community, it houses a wide variety of services, student and administrative offices, while providing space for campus activities and meetings.

Hinton James Hall, named for a New Hanover County resident who was the first student to enroll at The University of North Carolina, houses the Financial Aid Office, Registrar Services, Undergraduate Admissions, Cashier, and the office of the dean of the College of Arts and Sciences.

A new University Student Support Center opened in the summer of 1985. Centrally located adjacent to the University Union, it houses the University Bookstore, Student Health Services, and Student Development Center.

The University Cafeteria, opened in 1971, provides space for food services for students and faculty and contains the most modern food service equipment.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, opened in June 1976, accommodates 200 students. The 200-student residence hall, Addison Hewlett, Jr., Hall, opened in the fall of 1978. Another residence hall for 220 students, Frederick B. Graham Hall, was occupied in the fall of 1979. In the fall of 1981, the 400-student apartment complex was completed and occupied. Housing for an additional 160 students opened in the fall of 1985.

WILLIAM MADISON RANDALL LIBRARY

The William Madison Randall Library, completed in 1969 and named for the President Emeritus of Wilmington College, is undergoing a construction project that will more than double the original size. The project is scheduled for completion in August, 1987. The new facility will allow seating for approximately 950 users and will accommodate a collection of 470,000 volumes. The collection now contains over 290,000 volumes shelved in open stack areas according to the Library of Congress classification system. Rare and unique items are housed in the Helen Hagan Rare Book Room. Some 4,430 serial publications are received regularly on subscription; and extensive journal backfiles are maintained in bound volumes and in microformat. Coin-operated machines for copying microforms and hardbound materials are available for use.

The Randall Library is a partial depository for United States government publications, and the collection now consists of over 300,000 items. These materials are always available to all of the Library's users.

A growing audiovisual collection containing materials in several formats is conveniently located on the first floor. A 73-seat auditorium is equipped for various types of audiovisual use.

The Randall Library is open over 98 hours per week during the regular academic sessions. Several reference librarians are available to provide assistance and guidance to students and faculty who need their services.

A project is now underway to implement a minicomputer-based online catalog and circulation system. This system should be operational during the fall semester, 1987, greatly facilitating use of the Library's various collections.

HERBERT BLUETHENTHAL MEMORIAL WILDFLOWER PRESERVE

The Herbert Bluethenthal Memorial Wildflower Preserve is a tract of approximately 10 acres set aside on the campus by the University's Board of Trustees in response to a donation by Mrs. Herbert Bluethenthal of Wilmington. The Preserve includes a wide

variety of plant communities, marked trails to follow, and labeled plants to observe. It is dedicated to the preservation of the rich and varied flora of Southeastern North Carolina and has been designed to provide a place of contentment and pleasure for those who enjoy and appreciate our native plants.

ADMISSIONS

ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. Students must have the motivation and the determination to avail themselves of the learning experiences that will be beneficial to them if they are to attain both academic and personal enrichment. As a state-supported institution, the University is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may apply to enter the University at the beginning of the fall or spring semester and at the beginning of each summer term. Applications for fall semester must be filed by July 1; applications for spring semester must be filed by November 1. Students desiring to enroll in summer school must make application prior to the summer session registration date. The academic qualifications of each applicant are carefully reviewed by admissions personnel in a conscientious effort to admit students who have the potential for further academic achievement and growth.

Over enrollment or state budgetary constraints may require the restriction of admissions during a given year. This may require the adjustment of minimum requirements or the establishment of earlier application deadlines. An immunization record for each newly admitted UNCW student is required by law to be on file at UNCW prior to enrollment.

APPLICATION DATES

All students applying for admission or readmission to The University of North Carolina at Wilmington must complete their application for admission or their re-enrollment form by July 1 for the fall semester and by November 1 for the spring semester. The University, however, reserves the right to adjust deadline dates according to enrollment constraints. Applications for summer sessions must be received in the Office of Admissions *prior* to each summer session registration date.

NOTIFICATION OF ACCEPTANCE

Applicants are notified of action taken on their application as soon as possible. Admission decisions can be made only after all required information is in the Office of Admissions.

ADMISSIONS-FRESHMEN

The requirements for admission to The University of North Carolina at Wilmington **prior** to Fall of 1988 are:

(1) Graduation from an approved or accredited high school, or a GED certificate.
(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).
(3) An overall "C" average on all work attempted in grades 9-12.
(4) The following specific high school units:
    4 units in English
    *2 units in one foreign language
    2 units in Mathematics (Algebra I and Geometry or Algebra II)
    2 units in Social Science
    1 unit in Science
    *Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they may graduate with the baccalaureate degree.

Admissions requirements will change, effective Fall 1988 semester. These new requirements are outlined at the end of this Admissions section.

Application Procedure for Freshmen

Applicants are required to comply with the following:

1. Submit a completed application form by the deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school work or GED. The transcript must be sent directly to the Office of Admissions, The University of North Carolina at Wilmington, 601 S. College Road, Wilmington, North Carolina 28403-3297.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the ACT of the American College Testing Program. Because of deadlines for filing application to take the tests, arrangements must be made well in advance of the testing date so that the application is received by the testing company in time. Applicants are accepted to UNCW on the basis of their junior or senior SAT or ACT scores. For information about the SAT, contact the secondary school guidance counselor or write or call College Board ATP, P.O. Box 592, Princeton, New Jersey 08540, (609) 921-9023. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, P.O. Box 1025, Berkeley, California 94701, (415) 849-0950. For information about the American College Testing Program, write The College Testing Program, Program Services Department, P.O. Box 168, Iowa City, Iowa 52243.

It is important that the high school transcript, or GED, and test scores reach the University by the application deadline date so that all matters relating to the application may be complete before the opening of the semester in which the student expects to enroll.

ADMISSIONS-TRANSFER STUDENTS

Students wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) must be eligible to return to the institution last attended and (2) must have attained at least a "C" average (2.0 on 4.0 system) based on all courses attempted at all institutions attended. Transfer students with less than 24 semester hours (or 36 quarter hours) of transferable credit must also meet the freshman entrance requirements.

Students seeking admission by transfer of credits are required to have all transcripts of previous college or university work forwarded to the Office of Admissions by the Registrar of each institution they have attended. Even though no transfer of credit may be involved, all previous college or university work must be certified by transcripts or records of attendance. **An official high school transcript or GED must also be submitted.**

Application Procedure for Transfer Students

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form by the application deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Submit a completed University questionnaire. This questionnaire is included in the transfer admissions packet.

3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that the Registrar of each institution attended send an official transcript directly to the Office of Admissions by the application deadline date.

4. Have an official high school transcript or GED, including test scores, sent to the Office of Admissions by the application deadline date.

Official credit evaluation of transcripts will be done after admission when confirmation card is returned by student.

ADMISSIONS-NURSING, BUSINESS ADMINISTRATION, EDUCATION

Admission to the Bachelor of Science Degree Programs in Nursing or Business Administration, and the Bachelor of Arts Degree Program in Education requires application to and acceptance by the School of Nursing, School of Business, or School of Education in addition to acceptance by the University.

ADMISSIONS-FORMER STUDENTS (Re-enrolling)

Former UNCW students who wish to return to the University must apply to the Office of Admissions for readmission prior to July 1 for the fall semester or November 1 for the spring semester. Those who have attended another college or university since their last enrollment at UNCW are required to submit official transcripts from such institutions before they can be considered for readmission. **A "C" average (2.0 out of 4.0 system) must have been attained on all work from other institutions attended.**

The Three-year Rule

Any UNCW degree student who has been out of school for at least three years and has not attended any other institution since leaving UNCW is eligible to re-enter under the "three-year rule." Any former student of an accredited college or university who has not attended school for at least three years is also eligible to enter UNCW under the "three-year rule."

The student who elects to have the three-year rule applied will have neither a quality point deficit to overcome, nor hours of credit for those courses in which "D" grades were attained. Only courses in which a grade of "C" or better was earned will be counted toward graduation. Nevertheless, this option will not alter the student's original academic record. The quality point average will begin at the time studies are resumed, and the student will be required to maintain a "C" average on a semester basis to be eligible to continue. Degree requirements will be those in effect at the time the student reenrolls.

The three-year rule option must be exercised at the time the student applies for admission to the University. Once exercised, it may not later be reversed.

ADMISSIONS-UNCLASSIFIED STUDENTS

Individuals may enroll in the University as unclassified students by meeting the appropriate requirements for admission as stated below:

1. A transfer student who has not been enrolled in an institution of higher education for at least one year and who has not been academically suspended within the last three years may apply for admission as an unclassified student.
2. A high school graduate who has not attended an institution of higher education and has been graduated at least two years may apply for admission as an unclassified student.

3. Official college transcripts (transfers) and high school transcript or GED (transfers *and* freshmen) must be sent to the Office of Admissions by the application deadline date.

Students who enroll as unclassified students may take any undergraduate course as ong as the prerequisite listed in the course description is honored. Unclassified students are limited to two courses per semester or summer term. **An unclassified student nay apply for admission as a degree candidate upon completing a minimum of 15 semester hours with a "C" average on all work attempted.** The student must complete English 101-102 and three semester hours of basic mathematics with a "C" or better before being considered for admission as a degree candidate. An unclassified ransfer student who has completed English 101-102 and three semester hours of basic nathematics with a "C" or better will be considered as having met this requirement. However, requirements for transfer students to become degree candidates will vary depending on the previous college performance.

To avoid delay in having applications considered for change- over admission as legree candidates, unclassified students are advised to apply prior to the application leadline established for the semester. The maximum number of hours allowed students n the unclassified category is 30 semester hours. When this limit is reached, the students must be eligible to apply for admission consideration as degree candidates or terminate their enrollment at the University.

Unclassified students are subject to the academic regulations of the University as applicable.

ADMISSIONS-SPECIAL STUDENTS

Any individual who already possesses a degree from a four-year accredited college and wishes to enroll for an undergraduate course at UNCW or any individual with a degree who wishes to work toward a second baccalaureate degree must apply to the Office of Admissions before the application deadline date. An official transcript from the degree-granting institution must be sent from that institution to the Office of Admissions by the deadline date.

ADMISSIONS-PERMISSION/VISITING STUDENTS

During the summer session, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities must obtain prior written approval from their dean to take courses at UNCW. The University assumes no responsibility in determining a student's course selection when such credits are to be transferred elsewhere. Summer visitor applications and schedules are available by February of each year from the Office of Special Programs. Enrollment by permission from another institution in no way obligates the University to continue one's enrollment at UNCW after the expiration of the permission period. A student may not continue to attend as a permission/visitor student beyond two consecutive summer sessions. To apply for fall or spring semester visitor status, transfer requirements must be met.

ADMISSIONS-SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at UNCW if they meet the qualifications for participation in this program. Because of distance, this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer terms. Application deadline dates must be honored.

ADMISSIONS-INTERNATIONAL STUDENTS

The University of North Carolina at Wilmington welcomes interest and inquiry from international students. In addition to meeting regular freshman or transfer academic admission requirements, international students must present evidence of their ability to speak, read, and write the English language and to meet fully the financial obligations associated with their study at the University. Students from foreign countries must present the results of the TOEFL examination (Test of English as a Foreign Language) as a part of their application for admission. A financial responsibility statement and proof of accident and hospital insurance must be submitted. All materials for admission consideration must be in the Office of Admissions at least three (3) months prior to the date of registration for the entering semester or term. It is recommended that international students plan to begin their studies in a fall semester.

ADMISSIONS-SENIOR CITIZENS

Residents of North Carolina age 65 or older who meet applicable admission requirements may enroll tuition free on a space available basis. The availability of class space cannot be determined until after registration.

ADMISSIONS-AUDIT STUDENTS

Students who wish to take courses without receiving credit should apply to the Office of the Registrar immediately after the semester registration date. Audit students are admitted on a "space-available" basis.

ADMISSIONS-GRADUATE STUDENTS

All inquiries concerning admission to graduate programs should be directed to the Office of Graduate Studies. Admissions requirements are stated in the Graduate Studies section.

NONDISCRIMINATION POLICY

UNCW is dedicated to equality of opportunity within its community. Accordingly, UNCW does not practice nor condone discrimination in any form against students, employees, or applicants on the grounds of race, color, national origin, religion, sex, age, handicap or veteran status. UNCW commits itself to positive action to secure equal opportunity regardless of those characteristics. For additional information, contact the Federal Compliance Officer.

SAFETY AND HEALTH PROGRAM

UNCW's safety program complies with the State Occupational Safety and Health Act of 1973.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the University.

FRESHMAN ADMISSION REQUIREMENTS

for

The University of North Carolina at Wilmington

The Fall 1988 Semester

The requirements for Freshman admission to The University of North Carolina at Wilmington for the Fall 1988 semester are:

(1) A diploma from an approved or accredited high school or a GED Certificate.

(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).

(3) An overall "C" average on all work attempted in grades 9-12.

(4) The following specific high school units:

- Four (4) course units in English, emphasizing grammar, composition, and literature;

- Three (3) course units in mathematics, including:
  Algebra
  Algebra II and
  Geometry, or a higher level mathematics course for which Algebra II is a prerequisite.

- Three (3) course units in science, including:
  at least one (1) unit in a life or biological science (for example, biology)
  at least one (1) unit in a physical science (for example, physical science, chemistry, physics)
  at least one (1) laboratory course.

- Two (2) course units in social studies, including one (1) unit in U.S. History;

- *Two (2) course units in one foreign language

Students are strongly encouraged to take a foreign language course unit and a mathematics course unit in the 12th grade.

*Students who meet all the minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they are graduated with the baccalaureate degree from UNCW.

EXPENSES

EXPENSES

The Board of Governors of the University reserves the right to change the charges for tuition fees and the room and board rate at any time without prior notice.

TUITION AND FEES (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full Time Charges Per Semester

	In-State Students	Out-of-State Students*
Tuition	$205.00	$1,829.00
Fees	228.00	228.00
Total	$433.00	$2,057.00

Other fees:

Application Fee (to accompany application, nonrefundable)	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Undergraduate students registering for 12 or more semester hours will be charged at the full-time rate as shown above. Students scheduling fewer than 12 semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
1 - 5	$ 94.50	$ 500.50
6 - 8	298.00	1,110.00
9 - 11	382.00	1,600.00

*See information on residency at the end of this section.

The privileges of students taking fewer than six hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $16.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full prior to preregistration or registration for a new term.

ON-CAMPUS LIVING

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,175.00
Room and Board:	21 meals	$1,200.00

Three meal plans are available for apartment students. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,275.00
Apartment and Board:	15 meals	$1,300.00
Apartment and Board:	21 meals	$1,325.00

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

An advance room reservation deposit of $100.00, to be applied to the room and board account, must be remitted by each applicant, along with the complete application for room and board.

Those interested in obtaining information should contact:

Housing Office
The University of North Carolina at Wilmington
601 South College Road
Wilmington, North Carolina 28403-3297

SUMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

REFUNDS-TUITION

A student who officially withdraws from the University on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid.

Students withdrawing from the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to complete withdrawals from UNCW. If you simply reduce your course load after the Drop/Add period, you will receive NO refund or reduction of fees whatsoever.

REFUNDS-FINANCIAL AID

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

REFUNDS-HOUSING

Housing arrangements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except asprovided for below:

1. New Students (Incoming Freshment and Transfers) - If a new student, after remitting the deposit and being accepted to on-campus housing, decides not to live on campus and gives notice of this decision **in writing** by May 17, 1987 in the case of application for the fall semester, or at least one month prior to the semester in case of the application for the spring semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for refund received after May 17, 1987 will be denied and the $100.00 deposit forfeited. This condition also applies to students remitting the deposit and being accepted to on-campus housing after May 17, 1987.

2. Returning Students (Students currently or previously enrolled at UNCW) - The $100.00 housing deposit is "non-refundable" to returning students after being accepted to on-campus housing. (Exceptions being marriage, transfering to another institution or withdrawal from UNCW - less $25.00 administrative fee). Notification must be received in the Housing Office, **in writing,** by May 17, 1987.

3. Room rent for either semeter will not be refunded once a student officially moves into a residence hall/apartment.

4. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

RESIDENCE STATUS FOR TUITION PURPOSES

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the instituion of that statement to be conditioned by the following:

Residence. To qualify as a resident for tuition purposes, a person must become a legal resident and remain a legal resident for at least 12 months immediately prior to classification. Thus, there is a distinction between legal residence and residence for tuition purposes. Furthermore, twelve months legal residence means more than simple abode in North Carolina. In particular it means maintaining a domicile (permanent home of indefinite duration) as opposed to "maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education." The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification, who must show his or her entitlement by the preponderance (the greater part) of the residentiary information.

Initiative. Being classified a resident for tuition purposes is contingent on the student's seeking such status and providing all information that the institution may require in making the determination.

Parents' Domicile. If an individual, irrespective of age, has living parent(s) or court-appointed guardian of the person, the domicile of such parent(s), or guardian is, prima facie, the domicile of the individual; but this prima facie evidence of the individual's domicile may or may not be sustained by other information. Further, nondomiciliary status of parents is not deemed prima facie evidence of the applicant child's status if the applicant has lived (though not necessarily legally resided) in North Carolina for the five years preceding enrollment or re-registration.

Effect of Marriage. Marriage alone does not prevent a person from becoming or continuing to be a resident for tuition purposes, nor does marriage in any circumstances insure that a person will become or continue to be a resident for tuition purposes. Marriage and the legal residence of one's spouse are, however, relevant information in determining residentiary intent. Furthermore, if both a husband and his wife are legal

esidents of North Carolina and if one of them has been a legal resident longer than ne other, then the longer duration may be claimed by either spouse in meeting the welve-month requirement for in-state tuition status.

Military Personnel. A North Carolinian who serves outside the State in the armed orces does not lose North Carolina domicile simply by reason of such service. And tudents from the military may prove retention or establishment of residence by reference, as in other cases, to residentiary acts accompanied by residentiary intent.

Grace Period. If a person (1) has been a bona fide legal resident, (2) has consequently een classified a resident for tuition purposes, and (3) has subsequently lost North arolina legal residence while enrolled at a public institution of higher education, that erson may continue to enjoy the in-state tuition rate for a grace period of twelve nonths measured from the date on which North Carolina legal residence was lost. If ne twelve months end during an academic term for which the person is enrolled at a tate institution of higher education, the grace period extends, in addition, to the end f that term. The fact of marriage to one who continues domiciled outside North arolina does not by itself cause loss of legal residence, marking the beginning of the race period.

Minors. Minors (persons under 18 years of age) usually have the domicile of their arents, but certain special cases are recognized by the residence classification statute n determining residence for tuition purposes.

(a) If a minor's parents live apart, the minor's domicile is deemed to be North Carolina or the time period(s) that either parent, as a North Carolina legal resident, may claim nd does claim the minor as a tax dependent, even if other law or judicial act assigns ne minor's domicile outside North Carolina. A minor thus deemed to be a legal resident vill not, upon achieving majority before enrolling at an institution of higher education, ose North Carolina legal residence if that person (1) upon becoming an adult "acts, o the extent that the person's degree of actual emancipation permits, in a manner onsistent with bona fide legal residence in North Carolina" and (2) "begins enrollment t an institution of higher education not later than the fall academic term following ompletion of education prerequisite to admission at such institution."

(b) If a minor has lived for five or more consecutive years with relatives (other than arents) who are domiciled in North Carolina and if the relatives have functioned luring this time as if they were personal guardians, the minor will be deemed a resident or tuition purposes for an enrolled term commencing immediately after at least five ears in which these circumstances have existed. If under this consideration a minor s deemed to be a resident for tuition purposes immediately prior to his or her eighteenth irthday, that person on achieving majority will be deemed a legal resident of North arolina of at least 12 months duration. This provision acts to confer in-state tuition tatus even in the fact of other provisions of law to the contrary; however, a person leemed a resident of 12 months duration pursuant to this provision continues to be a egal resident of the State only so long as he or she does not abandon North Carolina omicile.

Lost but Regained Domicile. If a student ceases enrollment at or graduates from n institution of higher education while classified a resident for tuition purposes and hen both abandons and reacquires North Carolina domicile within a 12-month period, hat person, if he or she continues to maintain the reacquired domicile into re-enrollment at an institution of higher education, may re-enroll at the in-state tuition rate vithout having to meet the usual 12-month durational requirement. However, any one erson may receive the benefit of this provision only once.

Change of Status. A student admitted to initial enrollment in an institution (or ermitted to re-enroll following an absence from the institutional program which involved a formal withdrawal from enrollment) must be classified by the admitting institution either as a resident or as a nonresident for tuition purposes prior to actual nrollment. A residence status classification once assigned (and finalized pursuant to

any appeal properly taken) may be changed thereafter (with corresponding change in billing rates) only at intervals corresponding with the established primary divisions of the academic year.

Transfer Students. When a student transfers from one North Carolina public institution of higher education to another, he or she is treated as a new student by the institution to which he or she is transferring and must be assigned an initial residence status classification for tuition purposes.

The initial classification of undergraduate students as in- state or out-of-state residents for tuition purposes is made by the Admissions Office. Appeals for in-state status may be made to the campus appeals body, Out-of-State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available for inspection upon request in the Admissions Office and in the Randall Library.

FINANCIAL AID

FINANCIAL AID

The UNCW Financial Aid Office administers a program of financial aid which seeks to meet the needs of all enrolled students. While the program provides for the recognition of talent and outstanding student achievement, the program strives primarily to assist students with demonstrated financial need. It is our aim that no student be denied the opportunity to enroll or continue his education because of financial circumstances. The operation of the program is based upon a concept of needs-analysis that expects a student's family to meet educational expenses as completely as possible. The difference between the full cost of attendance and the determined amount of family contribution constitutes our definition of financial need. It is this calculated need which determines the amount of assistance an applicant receives.

To apply for financial aid a student must complete a Financial Aid Form provided by the College Scholarship Service and an institutional Financial Aid Application. Both forms are available in the UNCW Financial Aid Office. Questions concerning the financial aid program at UNCW should be directed to the Financial Aid Office, The University of North Carolina at Wilmington, 601 S. College Rd., Wilmington, N.C. 28403–3297, (919) 395-3177.

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general **Minority Presence Grant Program,** black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

AMERICAN INDIAN STUDENT LEGISLATIVE GRANT

The General Assembly of North Carolina has provided funds for a number of grants to needy resident North Carolina Indian students. Eligibility is limited to degree students who maintain cultural identification as an American Indian through membership in an Indian tribe recognized by the State of North Carolina or by the federal government or through other tribal affiliation.

GRANTS

Pell Grants provide federal grants for students who show need for assistance in attending college. This grant covers the period required to complete the first undergraduate baccalaureate degree as long as the student maintains satisfactory progress. Students must be enrolled for at least six hours and must be in good academic standing. In addition, a student must be a U.S. citizen or in the United States for other than a temporary purpose. Awards are based on demonstrated financial need which is determined by a national formula applied uniformly to all applicants. The Pell Grant Special Condition Form is recommended for use by applicants whose financial circumstances have changed significantly since 1986. The death of a parent or spouse, the complete loss of employment or the divorce or separation of parents are examples of such changes. In such circumstances, the Special Condition Form should be filed instead of the Financial Aid Form.

The Supplemental Educational Opportunity Grant Program provides aid to students who show need for assistance in attending college. Supplemental grants range in value from $100 to $4,000 per year, with the cumulative maximum of $12,000. To be eligible for a grant at UNCW, a student must be enrolled for at least six hours and must be a citizen or permanent resident of the United States. The application and Financial Statement must demonstrate exceptional financial need. Full time student applicants are given priority when funds are limited.

The North Carolina Student Incentive Grant Program is administered by College Foundation, Inc., for legal residents of North Carolina accepted or enrolled full-time and in good standing in an undergraduate program of study. Students must demonstrate "substantial financial need" as determined through the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of American College Testing Program. Students should see that the completed Financial Statement is sent with the processing fee as soon after January 1 as possible, but not later than March 15; late filers will be considered if funds are available.

UNCW Grants provide needy and worthy students with awards which cover tuition costs. To be eligible for one of these grants a student must be enrolled for at least 12 hours and have at least a 2.0 grade point average. Competition for these grants, however, generally results in higher grade point requirements.

Athletic Grants-In-Aid are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the Director of Athletics.

The North Carolina National Guard Tuition Assistance Program is a state funded Tuition Assistance Program for active members of the North Carolina Guard. This program willl pay the cost of tuition per academic year for a maximum of four years. For additional information contact:

Office of the Adjutant General
North Carolina National Guard
Attn.: AGRR
P.O. Drawer 26268
Raleigh, N.C. 27611
(919) 733-3770—Ext. 175

GENERAL SCHOLARSHIPS

UNCW Scholarships are awarded to students for talent and outstanding achievement. These scholarships are equal to the cost of tuition and are awarded through the Financial Aid Office by various departments, organizations, and campus publications.

The Lucille Murchison Marvin Scholarship is awarded each year to two students at UNCW who have a grade point average of at least 3.0 and who demonstrate scholarship ability and financial need.

The Eliza Collins Scholarship is awarded yearly to several students who demonstrate scholastic ability and need.

The Henry Harrell, Sr., and Alma M. Harrell Scholarship is awarded annually to students who have a grade point average of 3.0 or better and have an exceptional financial need.

The C. M. and M. D. Suther Scholarship is awarded annually to deserving high school graduates who would not otherwise be able to attend college. The scholarship amount will be approximately $950.00 annually.

The Devereux Haigh Lippitt Scholarship is awarded annually to a North Carolina student based on academic achievement. This scholarship covers the in-state cost of tuition and fees and is given in memory of Mr. Devereux Haigh Lippitt by his family.

The Elizabeth Dudley Urquhart Memorial Scholarship Fund provides a tuition and fees scholarship to an academically talented student who demonstrates financial need. The recipient must have completed the last two years of high school in a New Hanover County Public school.

The Eddie Godwin, III Memorial Scholarship of $1,000.00 is awarded annually to a graduate of New Hanover High School. Applicants must be able to demonstrate financial need through the regular financial aid process. Applicants should also show evidence of self help and acceptable academic standing. Though not required, athletic participation at the high school level is desirable.

The Alumni Association Academic Scholarship Program provides annual, renewable in-state tuition and fees scholarships based on academic achievement and potential. Students must be classified as North Carolina residents for tuition purposes. Applications, secured from the UNCW Alumni Affairs Office, must be completed and returned to that office by March 15.

The Mary Courtney Hardison Scholarship(s) are intended for female freshmen students who are graduates of any accredited high school in New Hanover County. Preference should be given to female students who have been active in high school activities, including organized athletics. Recipient(s) shall be selected based on a combination of academic achievement and demonstrated financial need.

The Army ROTC Scholarship and Simultaneous Membership Program. The Department of Military Science can assist UNCW students in applying for one of the Army's more than 12,750 Army ROTC Scholarships given annually. All academic majors are accepted and students can apply for two and three year scholarships. For more information contact the professor of Military Science. Additionally, students might consider the Simultaneous Membership Program. By participating in the UNCW ROTC program and simultaneously enlisting in the North Carolina Army National Guard or United States Army Reserve, a student can receive up to $20,000 over a four year period. The National Guard and United States Army Reserve offer tuition assistance, loan repayment programs, enlistment bonuses, drill pay and the opportunity to receive the benefits of the G.I. Bill. For more information, contact the professor of Military Science.

The New Hanover Memorial Hospital Auxillary Scholarship of $500 is awarded each year to a student pursuing studies in a health related field. Candidates must be graduates of a New Hanover County High School, be of good character, and be active in school and community activities. Entering freshmen must be in the top 10 percent of their graduating class and have scored at least 900 on the SAT. In the event that more than one student qualifies academically, need shall be a determining factor. This scholarship is renewable contingent on continuing satisfactory academic progress. Consequently, this scholarship may not be open each year to new candidates. Inquiries and request for application forms should be directed to the Financial Aid Office.

The Rotary Club of Wilmington provides an annual tuition and fees scholarship to an undergraduate applicant who demonstrates academic strength, good character traits, and financial need.

The Wilmington Business and Professional Women USA Scholarship of $1,000 is awarded annually to a female student who plans to pursue a business or professional career. Applicants must demonstrate financial need, academic achievement, and clearly stated educational goals. Applications may be obtained from the Financial Aid Office.

The Wilmington Woman's Club Scholarship is awarded to a New Hanover County high school graduate who demonstrates academic achievement and financial need. A recipient may continue to receive this scholarship if a 3.0 grade point average is maintained.

COLLEGE OF ARTS AND SCIENCES SCHOLARSHIPS

The Department of Biological Sciences annually awards three scholarships. The **Herbert Mintzes Memorial Award** is made to the rising sophomore with the highest standing in the sequence of introductory biology courses (BIO 205, 206, 207); the recipient is chosen by the course instructors. The **Dovie P. Bowden Scholarship** is awarded to a student of junior standing on the basis of scholarship and need; eligible students should contact the department chairman to apply. The **Franklin H. Allen Scholarship** is awarded to a rising senior on the basis of grade point average and other evidence of achievement; the recipient is chosen by a faculty committee.

Cape Industries Scholarship is awarded to a chemistry major at UNCW who has high grade point average. Interested students should contact the Department of Chemcal and Physical Sciences.

The LAQUE Scholarship is an annual scholarship awarded to a chemistry major. tudents interested in applying for this scholarship should contact the chairman of ıe Department of Chemical and Physical Sciences.

American Society for Qualified Control Scholarship. The Wilmington section of ıe American Society for Quality Control has established an academic scholarship for rising senior majoring in math with a strong background in statistics or for a rising enior in the field of business. The amount of the award will be the equivalent of intate tuition for two semesters. Interested applicants should contact the chairman of ıe Department of Mathematical Sciences.

The Helena R. Cheek Memorial Scholarship is awarded by the Department of Iodern Languages to a student who demonstrates special ability in the area of foreign ınguage study and overall academic excellence. This scholarship is given in memory f Helena R. Cheek by her family and friends.

The William F. Adcock, Jr., Music Scholarship is awarded to a student who plans ɔ graduate from UNCW with an emphasis in music and who has no more than 36 ours to complete for graduation. The award will be based upon overall excellence in ıusic, above-average academic record and acceptable performance standards.

The J. Rupert Bryan Scholarship is awarded to a political science major with nancial need. Candidates must be able to demonstrate creativity, curiosity, and acaemic worthiness.

The James E. L. Wade Scholarships in History and Political Science are awarded ɔ high school seniors who have a B average or above on high school work, an interest ı history or political science as a major, and financial need. For additional information, ontact the appropriate department chairman.

The J. Marshall Crews Scholarship is awarded annually to a major in the Deartment of Mathematical Sciences. Selection is based upon academic excellence, extraurricular activities, and faculty recommendation. Applicants seeking further inforıation should contact the Department of Mathematical Sciences.

The Fred Toney Scholarship is awarded each year based upon balloting by the aculty of the Department of Mathematical Sciences. Criteria include academic excelence and extracurricular activities. Inquiries should be directed to the chariman, Deartment of Mathematical Sciences.

The R & E Electronics Scholarship is an annual scholarship awarded primarily to minority sophomore student in pre-engineering studies who graduated from a North Carolina high school. The scholarship is based on academic ability and financial need.

The Scholarships for Research in Science and Civilization are available to stulents interested in research conducted by the Program in Science and Culture. Canlidates for the two scholarships are selected on a competitive basis; preference will e given to students with at least sophomore standing. An annual stipend of $1500 ıay be renewable contingent upon the availability of funds as long as the recipients emain undergraduate students at UNCW, maintain satisfactory academic standing and ıdequate performance. For additional information, contact Dr. Ralph Brauer, Director, Program in Science and Culture.

CAMERON SCHOOL OF BUSINESS SCHOLARSHIPS

The W. A. Corbett Scholarship is awarded annually to a junior or senior in the Cameron School of Business Administration with a grade point average of 3.0 or better vho is planning a career in the field of business. For information and application forms, ontact the Office of Financial Aid or the dean of the Cameron School of Business Administration.

The William S. Holland Scholarship for accounting majors, established in honor of William S. Holland, retired partner of Cherry, Bekaert and Holland, Certified Public Accountants, and a member of the first graduating class of Wilmington College, is awarded annually. For information and application forms, contact the chairman of the Department of Accountancy.

The Lower Cape Fear Personnel Association Scholarship, established for students planning to concentrate in the study of management, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The NCNB Scholarship is awarded annually to a student with an indicated interest in a career related to banking and/or finance. For information and application forms, contact the Financial Aid Office or the dean of the Cameron School of Bsuiness Administration.

The Sales and Marketing Executives International Association (Cape Fear Chapter) Scholarship, established for students concentrating in the study of marketing, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The United Carolina Bank Scholarship, established for students with an indicated interest in banking or finance, is awarded annually on the basis of scholastic ability, financial need, and recommendations by the faculty. For information and application forms, contact the chairman of the Department of Economics and Finance.

SCHOOL OF EDUCATION SCHOLARSHIPS

Ann Durant Walker Scholarship Award—The Alpha Psi Chapter of Alpha Delta Kappa awards a scholarship to a junior or senior majoring in Special Education. The scholarship is given in memory of Ann Durant Walker who helped develop the Special Education Program in New Hanover County.

The Sue McCall Boone Scholarship for education majors was established to provide a scholarship for a New Hanover County student who demonstrates a financial need at UNCW. The scholarship is named in honor of Miss Sue Boone, New Hanover educator, who contributed over 50 years of service in the community. The scholarship is awarded to one student biennially in the amount of tuition.

The Robert L. Ostrand Memorial Scholarship. Established by his family in memory of Robert L. Ostrand, whose life was characterized by a devotion to education, this scholarship is awarded annually to a senior in the the School of Education whose academic and service accomplishments exemplify the ideals of the profession of education.

SCHOOL OF NURSING SCHOLARSHIPS

The Medical Auxiliary Scholarship is awarded to a nursing student, second-or third-year medical technology student, or junior or senior pre-medical student who is a resident of New Hanover, Pender, or Brunswick County and who demonstrates financial need and scholastic ability.

The Forty and Eight Nursing Scholarship is an academic scholarship established by Voiture 245, the Forty and Eight of American Legionnaires, in joint memory of Voyageur Militaire John H. McInnis and Miss Dorothy Dixon, and is open to nursing students who graduated from high school in New Hanover, Pender, or Brunswick County.

The Ministering Circle of Wilmington awards scholarships on the basis of scholastic ability, financial need, and recommendation, to students accepted in the School of Nursing at UNCW.

The Juanita Borneman Memorial Scholarship, awarded to a student from rural North Carolina, approximates the cost of tuition.

The Billie Burney Memorial Scholarship, started by family and friends of the late Billie Burney, is awarded annually as a tuition scholarship to a student in the field of nursing.

The Louise Ogden Wright Nursing Scholarship is a $500 scholarship given annually by Mrs. Andrew Harriss in memory of her mother. The recipient is selected on the basis of financial need, academic record, and professed intention to pursue nursing as a career.

The Theresa Bentsen Warrick Memorial Nursing Scholarship is awarded to a nursing student demonstrating financial need and proved academic and clinical achievements. Applicants must be graduates from N. C. high schools and present an overall grade point average of at least 2.5.

EMPLOYMENT

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least 12 hours and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

The Institutional Work Program, also known as the Work Assistant Program, makes funds available for campus jobs for students. These funds are allocated to departments with the selection of student work assistants controlled by those departments. Students receiving any type of financial aid must receive clearance through the Financial Aid Office before accepting work positions under this program. Students interested in the program should direct inquiries to the department in which they prefer to work.

Off-Campus Employment is coordinated by the Career Planning and Placement Center. The office publicizes specific job openings, makes individual referrals, announces recruiting visits, and keeps on file company literature, information about public and private schools, and state and federal government opportunities. Students interested in using the services of this office should register with the Career Planning and Placement Center to establish a credentials file.

LOANS

Guaranteed Student Loans provide students with long term, low interest loans. Under this program a student may borrow up to $2,625 for each of the first two years in school and $4,000 for each of three additional years. All borrowers are required to complete the regular financial aid process and establish their eligibility on the basis of financial need. Repayment of these loans begins six months after a student ceases to be enrolled at least half time and borrowers are permitted up to 10 years for repayment. The interest on the loan begins at the time of repayment and is calculated at eight percent but rises to ten percent during the fifth year of repayment.

A combined application/promissory note form must be completed in addition to regular financial aid forms. Applicants for a North Carolina Guaranteed Student Loan may obtain forms from the Student Financial Aid Office or by writing College Foundation, Inc., 1307 Glenwood Avenue, Raleigh, North Carolina, 27605. Out of state students wishing to apply should contact their bank or the Guaranteed Agency in their state. Students unable to obtain further information should contact the Financial Aid Office.

National Direct Student Loan/Perkins Loan provide needy students with long-term, low-interest loans for eductional expenses. Under this program students may borrow up to $4,500 for the first two years of study and a total of $9,000 for undergraduate study. Repayment begins nine months after graduation or withdrawal from

school, and the borrower may take up to ten years to repay the loan. The interest rate is five percent and does not begin accruing until six months after graduation or withdrawal from school. All or part of the loan can be cancelled by teaching or military service. Applicants must complete the regular financial aid process. To be eligible for a Perkins Loan, a student must be enrolled for at least six hours and must be a citizen or permanent resident of the United States. Full-time student applicants are given priority when funds are limited.

The North Carolina Prospective Teachers Scholarship-Loan Program provides assistance to prospective North Carolina teachers. The program provides a $2000-per-year loan which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction. Inquiries regarding the program should be directed to N.C. Prospective Teachers Scholarship Program, State Department of Public Instruction, Raleigh, N.C. 27611. To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The North Carolina Student Loan Program for Health, Science and Mathematics provides financial assistance to North Carolina residents who demonstrate need as determined by the Board for Need-Based Medical Student Loans. Loans are available for study in the medical fields, mathematics and science programs that lead to a degree. Additional information can be obtained by writing to

The Student Loan Program
116 West Jones Street, Room 279
Administration Building, Suite 279
Raleigh, North Carolina 27611

ACADEMIC CONSIDERATIONS

Time Limitation Policy for Determining Eligibility for Financial Aid

A student is allowed up to two additional years beyond the traditional four-year track to complete the undergraduate degree. Any semester in which he or she registers and does not withdraw within the formal drop-add period will be counted, regardless of student's financial status.

Additionally, a student is determined to be no longer eligible for Federal Pell Grant Program once the required hours for graduation have been met. This is true regardless of whether or not the student applies for graduation.

Satisfactory Progress

To be eligible to receive or to remain eligible to receive financial aid funds, undergraduates must maintain "satisfactory progress" in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of the regular academic year.

Standard one requires that full-time students must demonstrate successful completion of 20 hours for the academic year (approximately one-sixth of total hours required for graduation); less than full-time students must complete 10 hours (approximately one-twelfth of total hours required for graduation). In the case of a student who changes his or her enrollment status from fall to spring semester, the hours which must be completed will be averaged. **Standard two** involves a qualitative measurement, as shown in the following chart establishing grade standards for hours attempted.

DEGREE STUDENTS		UNCLASSIFIED STUDENTS	
Hours Attempted	**GPA**	**Hours Attempted**	**GPA**
6 - 26	1.2	1 - 6	1.2
27 - 58	1.5	7 - 12	1.5
59 - 88	1.8	13 - 18	1.8
89 or more	2.0	19 - 27	2.0

NOTE: Students enrolled under the three-year rule will be required to meet a minimum 2.0 GPA each term and meet the quantitative measurement of standard one.

The standards of progress outlined for financial aid recipients are not applicable for purposes of continued enrollment, since such determinations will be made by the University in accordance with institutional policy.

A preliminary review will be made at mid-year (following fall semester) to identify those students not meeting the required academic standards. Full-time students not successfully completing at least 10 hours, and less-than-full-time students not completing at least 5 hours will be determined deficient. Students not meeting the academic requirements outlined on the retention chart will be issued a warning. Financial aid recipients who fail to meet both standards at the end of the spring semester will lose their continuing eligibility as aid candidates for subsequent periods of enrollment.

Eligibility lost due to shortage of hours can be regained by successfully completing at least 10 hours plus the number short (for full-time students) or at least 5 hours plus the number short (for less than full-time students) during the regular term. Eligibility lost due to failure to meet academic requirements can be regained by bringing the G.P.A. up to the standards outlined on the retention chart.

Students terminated from aid because of failure to meet satisfactory progress standards may appeal when mitigating circumstances exist. A student who through appropriate administrative review of mitigating circumstances is authorized to continue with his or her studies on a conditional basis is considered to meet the requirements of satisfactory progress.

Repeating of Courses

Repeating courses on which credit has already been received may not be counted in determining enrollment status for financial aid awards. For example, a student taking 12 credit hours, three of which were repeated courses with a previous grade of "D" or better would be considered taking nine hours for financial aid purposes.

Transfer Students

Each newly-enrolling student, whether freshman or transfer, is initially assumed to be making satisfactory progress. Additionally, the number of hours accepted as transfer hours will be used to place the student within the time frame allowed to complete the undergraduate degree.

Veterans Services

Veterans Services are administered under the umbrella of Student Financial Aid at UNCW. Services provided include peer and professional counseling, remedial and tutorial services, and certification for qualifying veterans and their dependents. The primary concern of Veterans Services is to assist students, monitor their course work, and insure that individuals utilizing veterans benefits keep in line with their prescribed curriculum and successfully complete their desired educational objective.

All veterans and dependents receiving V.A. Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule. Any change in the veteran's course of study should be cleared with the veteran's counselor in the Financial Aid Office to insure continuation of benefits. Transfer students are reminded that the office must have copies of all transcripts before certification can be made to the Veterans Administration for payment.

In determining eligibility for V.A. educational funds, the chart on page 41 will apply to all veterans and dependents using G.I. Benefits for their training at this University. Any full-time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his or her quality point standing.

STUDENT AFFAIRS

STUDENT AFFAIRS

The basic mission of the Division of Student Affairs is to encourage student use of personal, institutional, community, and other resources toward the goals of indiviidual development, self-fulfillment, and a responsible citizenship. Its programs and services are directed toward assisting students in their educational and personal development.

OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students serves as the primary focal point for addressing student needs, issues and concerns, and serves as a resource and referral office for all faculty, staff and students. Acting in an advocacy role, the Dean and Associate Dean of Students represent the student perspective to the University community. This office works with all segments of the University to help students develop through opportunities, advice and assistance. Within the Student Affairs Division, the Office of the Dean of Students provides consultation, new program development and assistance to the Vice Chancellor with special projects. Specifically, the office coordinates orientation for freshmen and transfer students, advises international and non- traditional students, publishes the *Student Handbook and Code of Student Life,* and coordinates the student judicial system and the official withdrawal process from the University for undergraduate students. Additionally, the Office of the Dean of Students coordinates programs and policy on rape prevention and assistance, substance abuse education and prevention, and implements developmental programs to meet assessed and perceived student needs. The Office of the Dean of Students also provides supervision for the Residence Life Program.

UNIVERSITY UNION

The University Union exists to provide support and give direction to out-of-classroom learning. Based on the philosophy that the process of learning is not confined to the classroom, but instead is a constant and ongoing process, the mission of the Union is to facilitate the educational process by providing a laboratory experience for student growth, and an arena for the development of cultural, social, and recreational awareness. This is accomplished through the administration of the Union facility, its programs and services, by providing resources to student organizations, and serving as the campus's central point of reference in regard to student activities and organizations.

STUDENT DEVELOPMENT SERVICES

Student Development Services, which include the Student Development Center and the Career Planning and Placement Center, provide support and assistance for students' personal, career, social and learning skill development. The services help students build satisfying and successful college experiences and prepare for the transition from college to work or to graduate study.

Student Development Center

The Student Development Center provides individual and group counseling for personal, social, career or educational concerns. Decision-making resources for careers and college majors include a computer guidance system, aptitude and interest testing, and an information library. Special assistance is offered with learning strategies, study, reading and exam-taking skills. Workshops are regularly scheduled on these topics as well as on personal growth, communication skills and stress management.

The Center acts as a clearinghouse for disabled students' concerns and assists with tutoring, equipment and advocacy needs. The office also administers national testing programs such as the SAT, GRE, GMAT, NTE and MAT.

Consulting and referral services are provided by the Center's staff for university faculty, staff and student groups.

Career Planning and Placement Center

The Career Planning and Placement Center provides career planning and placement services to students and alumni of UNCW. Assistance in developing career plans is available through individual advising, workshops and seminars. The office also provides information and counseling on careers, specific job requirements, employers, and graduate school programs. Students are encouraged to use these services early in their college career.

The office publicizes specific job openings (part-time, summer and full-time); makes individual referrals; schedules recruiting visits; keeps company literature; and provides information about public and private schools, and state and federal government opportunities.

Seniors should register with the Career Planning and Placement Center early in their final year to establish a credentials file and to avail themselves of all placement services including resume writing, interviewing skills and planning a job search.

RESIDENCE LIFE PROGRAM

The Office of Residence Life, located in the Residence Life Activity Center, is responsible for the development of social, cultural and educational programs to enhance student life on campus. The purpose of the Residence Life program is to create an environment conducive to academic and social growth within the halls. The office is responsible for the supervison of all students who reside in the residence halls and the apartment buildings.

The University has residence hall facilities for approximately 578 men and 578 women in five modern, conveniently located residence halls. In addition, 400 spaces are available in 13 apartment buildings. All rooms are air-conditioned and furnished, and laundry facilities are available. Residence hall students are required to take their meals in the University cafeteria under a five-day or seven-day plan. Students living in the apartments are required to take a limited meal plan.

FOOD SERVICE

The University operates a modern, air-conditioned cafeteria building. Short-order food service is available in the University Snack Bar located in the University Union. Service is on a cash basis for non-boarding students.

STUDENT HEALTH AND WELLNESS CENTER

The Student Health and Wellness Center (SHWC) located in the Student Support Center is open 8:30 a.m. to 5:00 p.m., Monday through Friday. After 5 p.m. during the week and all weekend, a Wilmington Health Associates physician is on call for urgent or emergency medical care.

The Student Health and Wellness Center (SHWC) provides diagnosis and treatment of general and accute medical problems. The health fee is part of the student fee and entitles students taking 6 or more credit hours* (living on or off campus) to health care services. The SHWC is staffed by two physician assistants, one family nurse practitioner, two nurses, a medical assistant, and the coordinator of health promotion.

In addition to the treatment of general medical problems, the scope of services include: laboratory testing to diagnose a variety of medical problems, allergy injections, gynecologic examinations and counseling, weight control and nutrition counseling, smoking cessation, crisis intervention, and referral as indicated. The Office of Health Promotion provides the wellness resource center (films, books, and pamphlets) as well as opportunities for self- health care, and programming in wellness.

Each newly admitted UNCW student is required to have the following forms on file in the SHWC prior to enrollment: 1.) a completed and up to date Report of Medical History and Physical Examination and 2.) a completed and up to date Immunization Record required by the N.C. Immunization Law (General Statutes 130A-152).

*Students taking less than six hours will be entitled to health care services upon payment of the health fee and will be required to have the above forms on record.

STUDENT HEALTH INSURANCE

The Student Health Fee covers most medical care given at the Student Health and Wellness Center on a prepaid basis. The health fee will not cover the costs if a student requires hospitalization or specialty care. It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents or hospitalization) under their family health insurance contact the SHWC or the Office of the Dean of Students for information and forms regarding the Student Group Health Insurance Plan available at a nominal cost through the University.

RELEASE OF "DIRECTORY INFORMATION"

The University of North Carolina at Wilmington has routinely made public certain information about its students. Typically, UNCW releases the names of students who are selected by the various honorary societies, receive scholarships, make the Dean's List, hold offices, or are members of athletic teams. The annual commencement program publishes the names of persons who have received degrees from UNCW during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following information: the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The University will make public information about each student limited to these categories in ways such as those described above. Of course, information from all these categories is not made public in every listing.

Students who do not wish to have any or all of such "directory information" made public without their prior consent must notify the Office of the Registrar of this fact in a signed and dated statement specifying items not to be published. This notice must be received by the Office of the Registrar by the end of the registration period for the semester or session of first enrollment or, after an absence, of re-enrollment and by the end of each fall registration thereafter.

STUDENT CONDUCT

The filing of an application of admission shall be construed as both an evidence and a pledge that the applicant accepts the standards and regulations of The University of North Carolina at Wilmington and agrees to abide by them. Each student, by the act of registering, is obligated to obey all rules and regulations of the University as stated in the *Student Handbook and Code of Student Life,* the University catalogue and other University publications. The University reserves the right to ask for the withdrawal of any student who refuses to adhere to the standards of the institution.

STATEMENT OF UNIVERSITY POLICIES, PROCEDURES, AND DISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL PROCESS

A policy statement was adopted by the Board of Trustees of the former consolidated University of North Carolina on October 26, 1970. It is set forth in Chapter V of the Code Provisions Governing the University of North Carolina, Bylaws of the Board of Trustees, and Duties of the University Officers. This policy continues in effect under the 1971 restructuring of The University of North Carolina, and is set forth in full in the *Student Handbook and Code of Student Life.*

STUDENT LIFE

STUDENT LIFE

UNIVERSITY UNION

Student life is enriched at the University of North Carolina at Wilmington by a broad spectrum of activities, most of which occur in or around the University Union. The Union is a 53,000 square-foot facility which opened its doors on March 21, 1983. It houses student organization offices, conference rooms, recreation and games facilities, lounges, study areas, snack bar, rental lockers, the University Information Center, U.S. Post Office, Wachovia Banking Machine, and an assortment of student services. With the guidance of the Office of Student Activities, students are provided opportunities to plan, execute, attend, and evaluate a wide variety of programs and activities. With the belief that education is not bound to the classroom, it is the University Union's goal to educate, entertain and enlighten the University community, while providing a laboratory for student growth and an arena for development of cultural, social and recreational awareness.

STUDENT ACTIVITIES OFFICE

The Office of Student Activities, located in the Union, works to expand and complement the student's education by providing support to the approximately seventy student clubs and organizations that are officially registered on campus. the Student Activities Office assists clubs with the planning, execution and evaluation of events and activities that are not only entertaining, but also educational. The office provides expertise in the areas of leadership development programs, activity programming, contract negotiation, university policy and procedure explanations, budget preparation, and organization development.

MINORITY AFFAIRS OFFICE

The Minority Affairs Office is responsible for the implementation of programs and activities designed to enhance the overall experiences of minority students at UNCW. Through direct sponsorship of or participation in Minority Visitation Day, orientation, workshops, recruitment, a minority mentor program, the tutorial assistance program, and other activities, the office provides an added dimension to the traditional services offered to UNCW students.

All students are invited to visit the office, in room 211 of the University Union, or to call 919-395-3832, to discuss ways in which the office may be of service.

UNIVERSITY INFORMATION CENTER

The Information Center, located on the first floor of the University Union, provides a variety of information on campus, student and community activities.

POSTAL SERVICES

A U.S. Post Office, which provides all postal services, is in the University Union. UNCW provides each student with a post office box where all mail (except grades) is delivered. Boxes are located on the first floor of the Union.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the University is the Student Government Association. fficers and at-large senators are elected by the student body, and other senators by asses within the student body.

The association is a democratic organization, permitting expression of student opinon, working for the best interests of the University and upholding a high standard of orals and conduct. It is responsible for the disbursement of half of the student activity ee. This money supports the Student Government Association in its objectives and ampus activities. The association is a member of the North Carolina Association of tudent Governments.

UNIVERSITY PROGRAM BOARD

The University Program Board coordinates the various student-produced events on ampus. It provides a diversified schedule of programs, activities, and events that romote and provide opportunities for educational, social, recreational, and cultural rowth for students and the campus community. The UPB is comprised of the following ommittees: Fine Arts/Lecture, Film-Video, Concert, Coffeehouse, Minority Arts, Resdence Life, and Special Events. The board is a member of the National Association or Campus Activities.

STUDENT ORGANIZATIONS

A variety of social, academic, and service organizations enhance student life at NCW. National sororities and fraternities are established on the campus to recognize tudents for their leadership and service activities. Several departments in the Uniersity have locally and nationally organized groups to stimulate interest in specific reas and to develop professional attitudes. Students are encouraged to contact the ffice of Student Activities for specific information relative to a student organization.

PUBLICATIONS

Students are involved in the writing and editing of several University publications.

The Seahawk, the student newspaper, is published weekly. Its staff is composed ntirely of students.

The Fledgling, the student-produced yearbook, contains the usual features of a college nnual.

The Atlantis, a literary magazine, is published by students each semester.

The Channel Marker is a calendar published monthly to provide information rearding the dates and times of campus events and activities.

The Student Handbook and Code of Student Life are the primary sources of inforation regarding University regulations and campus life.

ATHLETICS

The University holds membership in the National Collegiate Athletic Association nd the Colonial Athletic Association.

Varsity intercollegiate teams are fielded for men in basketball, cross country, baseball, olf, soccer, tennis, swimming, and water polo. Varsity intercollegiate teams for women re fielded in basketball, softball, tennis, volleyball, swimming, golf, and cross country.

In addition, an intramural sports program is provided for the student body. The rogram is based on both a competitive and recreational basis, and participation is oluntary.

PERFORMING ENSEMBLES IN MUSIC

Membership is open to any student who has had instrumental or vocal experience, with the approval of the director of the particular ensemble. Any participant may earn credit. Participation by nonmusic majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

Instrumental Ensembles

The UNCW Wind Ensemble is organized each semester to provide instrumental music experience for those students who desire it. The Wind Ensemble presents at least two concerts per year.

The UNCW Jazz Ensembles perform several concerts on and off campus each semester and perform an annual guest artist spring concert. Development of performance in the jazz idiom is stressed. These groups are open to any student who has had instrumental experience and the approval of the instructor. Auditions for each group are held at the beginning of each semester.

The Wilmington Symphony Orchestra, Inc., rehearses on campus and UNCW students may enroll and receive credit for participating in this group.

Faculty, student and senior recitals are presented free of charge and are open to the public as well as to all students.

The music division also maintains an Electronic Music Studio.

Vocal Ensembles

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the University, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit.

The University Concert Choir and small ensemble, The Chamber Singers, regularly provide music for University functions, appear on radio and television, and act as ambassadors from the University at a wide spectrum of community functions.

The UNCW Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama division.

THE UNIVERSITY THEATRE

The University Theatre is a student-oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potentials of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all University personnel and community residents.

UNIVERSITY READERS THEATRE

The University Readers Theatre provides students with an opportunity to participate in both the performance and technical production of a readers theatre script. Students attend open auditions and may take part in the reading, publicity, lighting, set design and managing of the show.

One major production is usually presented each semester. During semesters when he readers theatre course is offered, class members of that course will comprise the Jniversity Readers Theatre troupe. Interested students may inquire further at the Cre-tive Arts Department.

FORENSICS TEAM

The University Forensics Team participates in a number of tournaments each year n addition to hosting the annual Blockade Runner Invitational Tournament on the JNCW campus. Students gain experience in public speaking, interpretation, research nd argumentation. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of paintings, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. Student art is often featured. All exhibitions are open to he public without charge.

HONOR SOCIETIES AND AWARDS

THE SOCRATIC SOCIETY

The Socratic Society is an honorary scholastic society formed in 1968 to give special recognition to seniors of outstanding academic accomplishment. It is sponsored by faculty members who belong to the scholastic honorary fraternity Phi Beta Kappa.

Graduating seniors who have completed a minimum of 60 semester hours in the humanities and have attained an overall quality point average of 3.5 may be recommended for election to the society by the faculty of the area in which they are concentrating.

PHI ETA SIGMA NATIONAL HONOR SOCIETY

Phi Eta Sigma is a national college scholastic honor society for freshmen. A member of the Association of College Honor Societies, it was founded at the University of Illinois on March 22, 1923. The University of North Carolina at Wilmington Chapter of Phi Eta Sigma was chartered on March 17, 1979.

The goal of Phi Eta Sigma is to encourage and reward high scholastic attainment among freshmen. At the close of their first academic year freshmen are eligible for membership if they have a cumulative grade-point average of 3.5 or better with no grade lower than "C" on thirty hours or more course work at UNCW.

THE HONOR SOCIETY OF PHI KAPPA PHI

Phi Kappa Phi is an honor society recognizing good character and superior scholarship in all academic disciplines. A member of the Association of College Honor Societies, it was founded at the University of Maine at Orono in 1897. Chapter Number 222 at The University of North Carolina at Wilmington was chartered on May 1, 1980. Seniors and second semester juniors are elected to membership based on class standing and grade point average.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his or her years at the University. The medal is presented each year at commencement.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of The University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in the graduating class.

ADRIAN D. HURST AWARD

Established by Adrian D. Hurst, Emeritus Professor of Mathematics, this award recognizes a UNCW junior or senior math major who has achieved the highest overall academic grade point average. The award is presented each spring in the form of a plaque.

BIOLOGICAL SCIENCES ACHIEVEMENT AWARD

This award was established by the faculty of the Department of Biological Sciences o honor annually the graduating senior biology major who has achieved the highest academic standing. The recipient is identified on a permanent plaque in the Marine Science Building.

THE WALTER SCHMID PHYSICS AWARD

This award has been established in honor of the late Walter Schmid, engineer and nventor, to reward a senior bachelor of science physics major for excellence in physics. The award consists of an engraved plaque and a physics encyclopedia.

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

ACADEMIC REGULATIONS

ACADEMIC REGULATIONS

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fall and spring semesters. Its purpose is to acquaint students with opportunities and services at the University and to provide information needed to register for classes. Students are notified by mail of the time to report for the activities involved.

All freshmen, all transfer students, all reenrolling students, and all students changing from unclassified to degree status are assigned to the General College for advising purposes. Although not assigned to the General College, all unclassified students may receive advising assistance in the Advising Center.

REGISTRATION

Registration is limited to the time period specified in the University calendar of events and other days as announced by the Registrar's Office. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the appropriate dean, to carry a maximum of 21 semester hours.

PREREGISTRATION

Preregistration for students currently enrolled is held each semester. Students who complete preregistration and pay fees by the designated date are registered except in the event that they are declared academically ineligible at the end of the preceding semester.

TRANSFER OF CREDIT

Students transferring from a two-year institution may receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will be included in this total.

Students transferring from a four-year institution may receive up to a maximum of 92 semester hours from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will also be included in this total.

A maximum of 15 semester hours earned through correspondence may be applied toward graduation. Credit earned in another institution with a grade of "C" or better is accepted by the University if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. All grades earned at another institution are entered on the student's record exactly as earned. However, quality points earned at other institutions are not transferable and are not used in computing grade point averages except in the case of students applying to enter the teacher education program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the advanced placement programs of the College Entrance Examination Board. A brochure listing the examinations, required minimum scores, course equivalents, and credits awarded is available through the Registrar's Office or the Office of Admissions. A freshman who scores 3 or above on the Advanced Placement test will receive appropriate college credit and advanced placement. Students taking Advanced Placement tests should have the score reports sent to the Registrar's Office for evaluation concerning placement and credit. Individual departments have determined the specific courses for which credit will be given.

Students who are talented and well-prepared but who have not participated in the Advanced Placement or the College Level Examination programs, may apply to the Student Development Center for tests in the Student Development Examination programs. Tests are offered during two scheduled testing periods each year.

Students who have been exempted with credit from courses at an accredited college or university may be exempted with credit from appropriate courses at The University of North Carolina at Wilmington, as outlined in the test brochure. When the exemption is based on a test result, the student should have a copy of the score report sent to the Office of Admissions. In those cases in which a student has demonstrated his knowledge of a particular field by more advanced course work, exemptions may be granted on an individual basis by the appropriate department chairman.

ACADEMIC HONOR CODE

The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the University community are encouraged to report occurrences of dishonesty, honesty is principally the responsibility of each individual.

Academic dishonesty takes many forms, from blatant acts of cheating, stealing, or similar misdeeds to the more subtle forms of plagiarism, all of which are totally out of place in an institution of higher learning. Reporting and adjudication procedures have been developed to enforce the policy of academic integrity, to ensure justice, and to protect individual rights. Complete details may be found in the current *Student Handbook and Code of Student Life* and in the Faculty Handbook.

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student achievement. Grade symbols used are: A – excellent, B – good, C – average, D – passing, F – failure, I – incomplete, W – withdrew.

Quality points are assigned as follows: 4 for a grade of "A"; 3 for a grade of "B"; 2 for a grade of "C"; 1 for a grade of "D." No quality points are given for a grade of "I," "F," or "W." The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "I" or "F" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed according to a deadline established by the instructor, not to exceed one calendar year from the end of the semester in which the incomplete was given; otherwise the "I" becomes an "F."

Grade reports are mailed to the student at the end of each semester.

CHANGE OF MAJOR

To request a change of major, a student assigned to the General College or to a department in the College of Arts and Sciences should go to the General College Advising Center, located in the Randall Library. A student assigned to the School of Business, School of Education, or School of Nursing should go to the office of the dean of that school to request a change.

DEAN'S LIST

To be included in the Dean's List at the close of each semester, students must meet one of the following criteria:

(a) Students carrying 12-14 hours must earn a quality point average of 3.5 or better with no grade less than B.

(b) Students carrying 15 hours or more must earn a quality point average of 3.2 or better with no grade less than B.

Students carrying 11 hours or fewer are not eligible for the Dean's List.

WITHDRAWAL POLICY FOR UNDERGRADUATE STUDENTS

A student is allowed to withdraw from the University or from individual courses through the first week of the semester without having a grade entered on the academic record. Inclusive of the second through the sixth week of the semester, any student who withdraws from the University or from individual courses will receive a grade of W. A grade of W will not affect the student's grade point average. Beginning with the seventh week of the semester, a grade of F will be assigned for each course withdrawal.

To withdraw from an individual class or classes, the student must submit a Schedule Revision Form(s) to the Registrar's Office prior to the last day for withdrawal as indicated in the University Calendar of Events. To withdraw from all classes, the student must process an official Withdrawal Form through the Dean of Students Office. If the student is unable to appear in person to withdraw, written notice must be sent to the Dean of Students Office.

Should extenuating circumstances warrant, the grade of F assigned for course withdrawal may be changed to a W. This determination will be made by the Dean of the School or College in which the student is enrolled. It is the student's responsibility to initiate the appeal. The decision of the Dean is final and must be rendered prior to the end of the semester in which the withdrawal occurred.

AUDITING

The auditing of courses without credit is permitted by special permission of the Registrar and of the instructor involved. Individuals not regularly enrolled as students in the University who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees as required for credit courses.

REPEATING OF COURSES

Students who receive a grade of "C" or better in a course may not repeat the course but may audit it without credit.

Students who receive a grade of "D" may, with the permission of their academic advisor and the appropriate academic dean, repeat the course once and receive the grade for the course as repeated. However, no additional credit in hours earned toward graduation will be granted.

Students who receive a grade of "F" in a course may, with the permission of their academic advisor and the appropriate academic dean, repeat the course once for credit and a grade.

Course repeat approval forms are available in the Registrar's Office. A student who repeats a course without obtaining prior approval will receive no credit for the course as repeated. The policy became effective with the beginning of the 1985 fall semester.

OFF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, or summer school) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must obtain written approval of the advisor, the

department chairman, and the appropriate dean before registering for the course. This permission must be filed in the Registrar's Office on forms supplied by that office.

GRADE APPEAL PROCEDURE

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedure outlined below. Such appeal must be made not later than the last day of the next succeeding regular semester.

1. The student shall present the appeal in writing to the chairman of the department within which the protested grade was awarded. By conferring with the student and the instructor, the chairman will seek resolution by mutual agreement.
2. Failing such resolution the department chairman will transmit the written appeal to the appropriate dean, who will convene the Grade Appeals Committee.
3. The Grade Appeals Committee will consist of the convening Dean and five faculty members appointed by the Dean. If the Committee affirms the instructor's decision, the Dean will notify in writing the faculty member, the student, and the department chairman as appropriate. If the Committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

CLASS ATTENDANCE

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. All faculty members are responsible for setting policy concerning the role of attendance in determining grades for their classes. It is the responsibility of the students to learn and comply with the policies set for each class in which they are registered.

FINAL EXAMINATION POLICY

University policy requires the scheduling of final examinations. Under this policy, the final examination schedule provides a three-hour period for each examination and allows a maximum of three examinations per day. The length of the final examination, up to a maximum of three hours, is at the discretion of the instructor.

The final examination schedule is published at the beginning of each semester. Courses offered during the day have final examinations during the day (two per day). Night courses have final examinations at night (one per night).

A student who is scheduled to take three final examinations in one calendar day may have one rescheduled by notifying the three instructors and the appropriate deans of this desire at least two weeks before the beginning of the final examination period. It will be the responsibility of the three instructors, working with the student, to reschedule one of the examinations and to so inform the student and the appropriate deans at least one week before the beginning of the final examination period.

Rescheduling of a final examination for an entire class may be done only with the approval of the appropriate dean.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in eight semesters, a student must average 15 to 16 hours per semester.

The required number of hours passed for each classification is as follows:
Less than 27 semester hours credit – Freshman
From 27-58 semester hours credit – Sophomore
From 59-88 semester hours credit – Junior
More than 88 semester hours credit – Senior

Retention, Dismissal and Readmission

The University of North Carolina at Wilmington both encourages and requires scholarship. In order to remain at the University, all students must meet the quality point requirements as outlined below.

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
6 - 26	1.2
27 - 58	1.5
59 - 88	1.8
89 or more	2.0

Transfer students are placed in the above retention chart based on total hours transferred from all institutions attended. Transfer students' quality point averages are computed only on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed to make up deficiencies during this University's summer sessions which immediately follow the spring semester in which they were declared ineligible. If such deficiencies are not removed in this manner, students will be dismissed from the University for one semester. Such students may reenroll for any subsequent semester if space is available. Reenrollment, if allowed, is on a probationary basis and students must prove themselves by meeting the required quality point average as outlined in the retention chart. However, reenrolled students who make a 2.0 average or better during the first semester after returning, but who fail to reduce quality point deficiencies to the required level, will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for readmission is restored by completion of sufficient work during the summer sessions at the University of North Carolina at Wilmington.

Students may, through appropriate administrative review of mitigating circumstances, be authorized to continue with their studies on a conditional basis. Written permission must be obtained from the appropriate dean prior to the beginning of the semester in which such students wish to enroll.

Full-time students who fail to pass at least three hours during any semester are subject to academic dismissal for one semester, regardless of quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester. Students who fail to meet this requirement will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the retention table if they wish to continue in the University.

HONORS PROGRAM

A student who has a quality point average 3.2 or better (including all transferred work) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.2 or better quality point average

at The University of North Carolina at Wilmington, and who is recommended by the chairman of the area of concentration is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required courses.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.2 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.2, however, may still receive credit for the honors project.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0. The final 30 semester hours of course credit, including the final 15 semester hours in the concentration, must be completed at The University of North Carolina at Wilmington.

Graduation will be certified at the end of the term in which all academic requirements are complete. Upon completion of all requirements, the student will receive either the Bachelor of Arts or the Bachelor of Science Degree.

Application for graduation must be filed in the Office of the Registrar on or before the dates specified in the University calendar on page 5.

In advising and registering students, the deans, the registrar and faculty advisors try to make certain that every student who intends to graduate from the University registers for those courses which are required for a degree. **The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the University catalogue.**

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the entering catalogue or under any subsequent catalogue, provided all graduation requirements are completed within six years of the expiration date of the catalogue chosen.

REQUIREMENTS FOR A DOUBLE CONCENTRATION

A student may elect to concentrate in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meets all requirements for each concentration. The student who completes requirements for more than one concentration will receive only one degree, but at the time of the initial graduation the record will indicate both concentrations when the completed requirements lead to the same baccalaureate degree.

A student who returns to the University after the initial graduation to complete the requirements for a second concentration may have the additional area of concentration added to the official record upon written notification from the department chairman that all departmental requirements have been satisfactorily met.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree may receive a second baccalaureate degree if it is a different degree and a different concentration by fulfilling the following requirements:

(1) The student must meet all the requirements for the second degree and concentration.
(2) The student must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

DEGREES WITH DISTINCTION

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average of 3.50
Magna Cum Laude for an overall average of 3.70
Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

1. The student must have the required overall average on all work attempted (including any transfer credit).
2. The student must have the required average on work attempted at The University of North Carolina at Wilmington.

Students who complete the Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

TRANSCRIPTS

All students are entitled to one official transcript of their work without charge. Additional copies of the transcript at a cost of $1.00 each may be obtained upon written request to the Office of the Registrar.

INDEBTEDNESS

All indebtedness to the University must be satisfactorily settled before a diploma or transcript of record will be issued.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar of any change in name or mailing address for grades and bills.

DEGREE REQUIREMENTS AND COURSE DESCRIPTIONS

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to the Bachelor of Arts and the Bachelor of Science degrees and graduate programs leading to the Master of Business Administration, Master of Education, and Master of Science degrees. Professional undergraduate programs include those offered in the Cameron School of Business Administration, the School of Education, the School of Nursing and the Medical Technology program in the College of Arts and Sciences. Preprofessional programs are offered in agriculture and forestry, dentistry, engineering, law, medicine, optometry, pharmacy, physical therapy, and veterinary medicine. The University has special programs in marine sciences and environmental studies.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Anthropology
Biology
Chemistry
Creative Arts
  Art
  Drama
  Music
Economics
Elementary Education
English
Environmental Studies
French
Geography
Geology
History
Mathematics
Middle Grades Education
Parks and Recreation Management
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish
Special Education
Speech Communication

Areas of Concentration for the Bachelor of Science Degree

Accountancy
Biology
Business Management
Chemistry
Computer Science
Economics
Finance
Geology
Marine Biology
Marketing
Mathematics
Medical Technology
Nursing
Physics

Area of Concentration for the Master of Business Administration Degree

Business Management and Administration

Areas of Concentration for the Master of Education Degree

Elementary Education
Educational Administration and Supervision
Reading Education
Special Education

Areas of Concentration for the Master of Science Degree

Geology
Marine Biology

THE GENERAL COLLEGE

The General College ordinarily consists of the first two years of study during which students are expected to fulfill all or most of the University's basic studies requirements as outlined in this University catalogue. All freshmen and transfer students are enrolled in the General College. Upon entering the University, many students do not know which major they will pursue. Courses prerequisite to a major, combined with elective courses, provide the opportunity to explore several different areas of academic interest. Students who have already chosen their major or professional program will still want to complete, or make satisfactory progress toward completing, basic studies requirements combined with other required courses in their chosen field before transferring from the General College. Also, students with admissions deficiencies are expected to remain in the General College until those deficiencies are made up.

Transfer students who have met the necessary requirements will be referred immediately to the appropriate department within the College of Arts and Sciences. Those who have not met these requirements will be retained in the General College until such requirements have been met. For professional schools or Computer Science, admissions requirements are outlined below.

The General College Advising Program

Each student in the General College receives the personal assistance of a faculty advisor in selecting courses, maintaining required scholastic standards, and planning a complete General College educational program. Every effort is made to place students in classes appropriate to their level of preparation and achievement.

The General College Advising Program has over 60 faculty advisors and is responsible for advising all students in the General College. Advising assistance is available in the General College Advising Center, from 8 a.m. - 5 p.m., Monday through Friday. Advisors may be seen either on an appointment or a drop-in basis. Advisees are expected to see their advisors before preregistration/registration and before dropping or adding courses or before withdrawing from the University.

Admission to the College of Arts & Sciences

Students reasonably certain of a major within the College of Arts & Sciences (except Computer Science) may request to have their records transferred to the appropriate department toward the end of the second semester of the freshman year. Students still uncertain of a major should remain in the General College during their sophomore year and continue receiving General College advising assistance.

Students planning to major in Computer Science must first:

Complete the following courses with a grade of C or better:

CSC 121	Introduction to Computer Science I
CSC 231	Discrete Structures
CSC 241	Introduction to Computer Systems & Assembly Languages
MAT 161	Calculus with Analytic Geometry

Upon completion of these requirements to major in Computer Science, students may request to have their records transferred to the Department of Mathematical Sciences.

Admission to the Professional Schools

Students seeking admission to the Cameron School of Business Administration and the School of Education normally submit their applications to the appropriate school immediately upon completion of the third semester of study, provided that all minimal requirements as stated in the University catalogue have been met at the time of application.

Students seeking admission to the School of Nursing must submit applications to the Office of the Dean, School of Nursing. Application forms and deadline dates are available through the School of Nursing.

I. Requirements for Admission to the Cameron School of Business Administration

1. The following courses must have been successfully completed:

ENG 101-102	Composition
MAT 111	Precalculus I
ACG 201*	Financial Accounting
ECN 221	Principles of Economics (Micro)

2. During the semester of application each applicant must be enrolled in or have successfully completed:

ACG 203 or 204*	Managerial Accounting or Intermediate Accounting I
ECN 222	Principles of Economics (Macro)
BUS 217*	Statistical Analysis
MAT 151	Basic Calculus with Applications I

*ACG 201 and 203 or 204 not required and STT 205 or 215 may be substituted for BUS 217 in the B.A. Economics degree program.

3. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).

II. Requirements for Admission to the School of Education and the Teacher Education Program

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.

3. Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).

4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

III. Requirements for Admission to the School of Nursing—Bachelor of Science Degree Program

1. Minimum overall cumulative GPA of 2.5 or better (on a 4.0 scale) is required for all course work completed at the college or university level.

2. Minimum grade of "C" in each of the following courses or their equivalent:

BIO 240-241	Human Anatomy & Physiology (2 semesters)
CHM 115	Fundamentals of General Chemistry
CHM 215	Organic/Biological Chemistry
BIO 246	Microbiology of Human Diseases
MAT 111	Precalculus I

3. Completion of all courses prerequisite to the nursing major. (Any foreign language deficiency must have been removed prior to admission to the program).

4. Evidence of satisfactory high school completion or equivalent.

5. Satisfactory physical and emotional health.

dmission Requirements—RN Access Program

In addition to the above requirements, applicants to the RN Access Program need:
1. One year nursing practice.
2. A current license to practice as a registered nurse in North Carolina.

ASIC STUDIES REQUIREMENTS

Basic studies at The University of North Carolina at Wilmington is defined as the cquisition of essential skills and an introduction to the broad spectrum of studies vhich are basic to our intellectual and cultural heritage. The program is designed to evelop skills in comprehension, composition, reasoning and analysis; to introduce tudents to the structure, methodology and knowledge of academic disciplines; and to ddress important human concerns from disciplinary or interdisciplinary perspectives.

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must meet the basic studies requirements as outlined below, and n fulfilling these requirements must acquire a total of forty-five (45) semester hours ess exemptions.

A. English Composition (6 hours)
Required: English 101 and 102 (3-3)

B. Physical Education (2 hours)
Required: Physical Education 101 (2)

C. Humanities (9-15 hours)
Required: A minimum of nine and a maximum of 15 hours elected from at least two of the following areas:
Communication 105
English 110, 207, 208, 210, 211, 212, 219, 230, 250
History 101, 102, 201, 202, 237, 261, 273, 275
Modern Languages
French 101, 102, 201, 202, 305, 311, 312, 321, 322
German 101, 102, 201, 202, 305, 321, 322, 350
Spanish 101, 102, 201, 202, 209, 210, 211, 212, 305, 311, 312, 321, 322
Portuguese 101, 102, 201, 202
Philosophy and Religion 101, 103, 110, 115, 201, 202, 205, 215, 230, 232, 235, 236, 242

D. Creative Arts (3-6 hours)
Required: A minimum of three and a maximum of six hours elected from the following areas:
Art 101, 102, 111, 112, 201, 202, 204, 221, 241, 242
Communication 116
Drama 221, 225
Music 085*, 086*, 087*, 105, 115, 116, 117, 118
*(Basic studies credit from Music 085, 086, and 087 may not exceed a total of three semester hours.)

E. Natural and Mathematical Sciences (10-15 hours)
Required: A minimum of 10 and a maximum of 15 hours from the two areas of natural sciences and mathematical sciences as described below:
1. Natural Sciences (4-12 hours)
Required: A minimum of four and a maximum of 12 hours, including at least one laboratory science course (starred below), elected from the following:
Anthropology 210
Biology 105*, 205*, 206*, 207, 215*, 235, 236, 237, 238, 240*, 241*
Chemistry 101*, 102*, 103*, 105, 106*, 115*, 215*
Geography 130*, 230
Geology 101*, 102*, 120, 150
Physical Education 216*, 217
Physics 101*, 102*, 105*, 201*, 202*, 260
2. Mathematical Sciences (3-8 hours)
Required: One of the following courses:
Mathematics 101, 111, 112, 115, 141, 151, 161
Additional credit may be earned by electing from the following:
Computer Science 111
Mathematics 102, 112, 142, 151, 152, 161, 162, 275
Philosophy and Religion 218
Statistics 205, 210, 215

F. Social and Behavioral Sciences (3-9 hours)
Required: A minimum of three and a maximum of nine hours elected from th following:
Anthropology 105, 205 (Sociology 205), 206, 207
Criminal Justice 201

Economics 125, 221, 222
Geography 110, 140
Political Science 101, 102, 111, 206, 207
Psychology 105, 145, 220, 323
Social Work 235, 245
Sociology 105, 110, 205 (Anthropology 205) 215, 225

Vaiver of Requirements

English: Students who have not qualified for advanced placement but who because f special circumstances may have writing competencies equal or superior to those equired in English 101 or 102, may at the discretion of the chairman of the Department f English take a waiver examination. An acceptable score will waive either or both equirements. This waiver does not grant academic credit.

Mathematics: Students who have not qualified for advanced placement but who iay have competencies equal or superior to those required for successful completion f Mathematics 151 or 161, may at the discretion of the chairman of the Department f Mathematical Sciences take a waiver examination for either of these courses. An cceptable score on this exam waives the requirement that one of the introductory iathematics courses be taken. This waiver does not grant academic credit.

REQUIRED PHYSICAL EDUCATION

Through participation in the required physical education program, students should xpect to develop an understanding of the role of life-long physical activity in enancing the quality of one's life.

The University requires all students to complete with a passing grade Physical Education 101, Foundations of Physical Activity. Transfer students who have not had an quivalent course must also complete this requirement. Handicapped students are ncouraged to participate to the fullest extent possible in physical education activities nd are encouraged to consult with the chairman of the Department of Health, Physical ducation, and Recreation concerning participation in these activities.

The University requires all students to provide information regarding their current ealth status on the Report of Medical History form available through the Admissions)ffice. Completion of this requirement is a prerequisite to:

1) enrollment in any physical education activity course,
2) participation in any intramural activity, or
3) utilization of the physical education facilities for recreational purposes.

Based on the information contained in this report, the student will be assigned to ne of three categories listed below:

A. Unrestricted participation
B. Restricted participation
C. Temporarily restricted participation because of an injury or illness.

COURSE DESCRIPTIONS

All undergraduate courses offered in the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing are listed following the appropriate departmental degree requirements. Not all of the courses listed are offered within a single academic year. A listing of the courses offered during a given semester is printed in a Class Schedule Booklet, which is placed in each student's University mailbox before preregistration each semester.

PLEASE NOTE: A hyphen connecting courses (e.g., 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g., 201, 202), the first course is not necessarily prerequisite to those following. The semester hours credit for each course is indicated in parentheses following the course title.

TRIAL COURSES

Academic departments may offer special trial courses during the fall and spring semesters on a one-time basis without adding them to their regular departmental offerings. A second trial offering, if additional data are essential, must be within two regular semesters of the first. Numbers designating these special courses are 292 and 492. Descriptive information on trial courses does not appear in the catalogue, but is on file in the Office of the Registrar.

DIRECTED INDIVIDUAL STUDY

This course designated as 491 in each department involves investigation beyond what is offered in existing courses. To enroll in a Directed Individual Study, students must have an overall grade point average of at least 2.0 and the approval of 1) the faculty member who would direct the study, 2) the departmental chairman, and 3) the appropriate Dean. Departmental criteria will include 1) the availability of the instructor (ordinarily instructors will not supervise more than 6 student credit hours of Directed Individual Study per semester), 2) the appropriateness of and need for the proposed study in the student's program, 3) the availability of library and other research resources, and 4) the feasibility of completion of the proposed study in the allotted time. Students are limited to 9 credit hours of Directed Individual Study toward graduation requirements, not more than 3 of which can be outside the area of concentration.

COLLEGE OF ARTS AND SCIENCES

aniel B. Plyer, *Dean*
ary L. Faulkner, *Assistant Dean*
Ann Seiple, *Assistant Dean*
hn L. Stokes, *Assistant Dean*

The College of Arts and Sciences offers a variety of programs in the liberal arts ading to the Bachelor of Arts and Bachelor of Science degrees. To implement these rograms, the College provides instruction, research, and creative opportunities in the ne arts and humanities as well as in the natural, physical, and social sciences. The 'teen academic departments in the College provide courses of study in each of these eas, in addition to the interdisciplinary programs in social science and environmental udies, a professional program in medical technology, and pre-professional programs agriculture and forestry, dentistry, engineering, law, medicine, optometry, pharmacy, nysical therapy, and veterinary medicine. The College also offers graduate programs Geology and in Marine Biology leading to the Master of Science degree.

Degree requirements for all undergraduate concentrations available in the College of rts and Sciences are listed below by departments. Requirements for the Master of cience degrees are listed in the Graduate Studies section, while those for professional, re-professional, and special programs are listed in those sections of this catalogue.

DEPARTMENTAL REQUIREMENTS

ANTHROPOLOGY

(See Sociology and Anthropology)

ARMY ROTC

(See Military Science)

ART

(See Creative Arts)

BIOLOGICAL SCIENCES

Dr. Merritt, *Chairman.* Dr. Ballard, Dr. Biggs, Dr. Cahoon, Dr. Clavijo, Dr. Dillaman, r. Dodd, Dr. Dunn, Dr. Fugler, Dr. George, Dr. Hackney, Dr. Hosier, Dr. Kapraun, Mrs. endrick, Dr. Lindquist, Dr. Lundeen, Dr. McCrary, Dr. Mintzes, Dr. Padgett, Dr. Parnell, r. Plyler, Dr. Roer, Dr. Roye, Dr. Shafer, Dr. Sieren, Dr. Sizemore, Dr. Webster.

Requirements for a concentration in Biology for the B.A. degree: Basic core equirements are Biology 205, 206, 207, and 208 which must be taken within the first our semesters. In addition to those requirements, there are three options described elow, one in which a student must elect in order to complete the degree requirements.

ption 1.

Biology 495 and a minimum of 25 hours chosen from courses numbered above 299, f which at least one course must be from each of the following three groups of courses: dvanced botany, advanced zoology, molecular/cellular biology; Chemistry 101-102 ith lab or 105-106-102 with lab; a minimum of 16 hours chosen from the listed courses n at least two of the following areas: Chemistry 211, 212, 335; Computer Science 105,

111, 115; Geography 432, Geology 101, 102, 150, 450; Mathematics 151, 152, 161, 162, 261; Physics 101 or 105, 102, 201, 202, 260; Psychology 456, 457; Statistics 215. With the advanced approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is a flexible program which can be designed by a student and an advisor to meet personal educational goals and interests which may or may not include graduate study; the program may be used to meet a set of specific requirements, for example, certification for teaching at the secondary school level.

Option 2.

Biology 335, 366, 475, 495; at least two of the following: Biology 356, 452, 454, 456, 457; a minimum of 10 hours chosen from Biology 315, 316, 345, or 355, 375, 466, 477, 491; Chemistry 101-102 with lab or 105-106-102 with lab; a minimum of 16 hours chosen from Chemistry 211, 212; Mathematics 111, 112; Geology 101, 102; Geography 432; Psychology 457; Statistics 215; Computer Science 105, 111. With the advanced approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is designed for students interested in studying freshwater and terrestrial higher plants and animals and who will pursue graduate study and/or careers in such fields as systematics, ecology, fish and game management, and nature interpretation in parks and wilderness areas.

Option 3.

Biology 315, 335 with lab, 345, 347 or 465, 495; a minimum of 8 hours chosen from Biology 316, 371, 410, 425, 435, 440, 441, 477. Collateral requirements are Chemistry 101 and 102 with lab, 211 and 212 with lab, 235; Physics 101 and 102 with lab; Mathematics 151, 152. A "C" or better average on Biology courses above 299.

This option is designed for student who wish preprofessional training in medicine, dentistry, optometry, and other health care fields. The sequence of courses conforms to entrance requirements prescribed in publications of the Association of American Medical Colleges, the American Association of Dental Schools, and the council on Optometric Education of the American Optometric Association.

Requirements for concentration in Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 315 or 375 or 474, 335 with lab, 345 or 355 or 347 with lab, 366, 495, and a minimum of 8 additional hours in courses numbered above 299, one course each from two of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology. Collateral requirements are Chemistry 101-102 with lab or 105-106-102 with lab, 211-212 with lab; Physics 101-102 or 201-202; Mathematics 151 and Statistics 215. Students planning to attend graduate school are urged to take Chemistry 235, Mathematics 152, Computer Science 111, 121, 125, 126, and French 201-202 or German 201-202. A "C" or better average on all Biology courses above 299.

This degree program is designed for those students who plan to attend graduate school or seek employment in various fields of biological specialization.

Requirements for concentration in Marine Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 362, 366, 345 or 355 or 347 with or without lab; 315 or 316 or 335 with or without lab or 474; 495; a minimum of 10 hours selected from the following: 365 or 481, 446 or 472, 457, 458, 462, 468. Collateral requirements are Chemistry 101-102 with lab or 105-106-102 with lab; Geology 150; Physics 101-102 or

)1-202; Mathematics 111-112 or 115-151 or a higher sequence; a minimum of 4 se-ester hours chosen from Chemistry 211, 212, 235, 475; Computer Science 111, 121, 5; Earth Sciences 230; Geography 430, 432; Geology 101, 231, 450; Statistics 215. A C" or better average on Biology courses above 299.

This degree program is designed for those students who plan to attend graduate hool or seek employment in fields of biological specialization which are marine lated.

For the purpose of satisfying degree requirements in Biology, the following are nsidered to be courses in

Advance Botany: 355, 375, 466, 472, 474, 475, 477
Advanced Zoology: 315, 316, 345, 356, 365, 452, 454, 456, 457, 458, 462, 481
Cellular-molecular Biology: 335, 347, 410, 425, 430, 440, 465, 467

Requirements for Teacher Certification in Biology: In addition to completing the quirements for a degree in Biology or Marine Biology and the other requirements of e Teacher Education Program, the following courses are required for certification: ology 315; 235 or 335 with or without lab; 345 or 347 with or without lab or 355; id 366.

Biology Course Descriptions

IO 105. Concepts of Modern Biology (4) An introduction to the diversity of life and the principles governing living systems, focusing on the role of man in the natural world. This course employs multi-media instructional materials and is designed for the nonbiology major. Three lecture hours and three laboratory/discussion hours each week.

IO 108. Introduction to Medical Technology (1) A suruvey of medical laboratory technology as a career option. Explores the many disciplines encompassed by the profession including microbiology, chemistry, blood banking, and hematology as they apply to the medical diagnostic laboratory, as well as brief considerations of cytotechnology and histo-technology. The course includes a discussion of the nature and scope of necessary skills, opportunities for advancement, certification requirements, and visits to a hospital laboratory. One hours and fifteen minutes each week.

IO 205, 206, 207, 208. Core courses for biology majors; must be completed within the first four semesters.

IO 205. Introductory Biology: Plants (4) Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes, and lower vascular plants. Three lecture and three laboratory hours each week.

IO 206. Introductory Biology: Animals (4) Classification, morphology, physiology, and ecology of animals, including brief survey of major phyla and discussion of human body systems. Three lecture and three laboratory hours each week.

IO 207. Introductory Biology: Cells (3) An introduction to the cell as the basic unit of life. Cell structure is integrated with such functions as the utilization of food energy, the expression of genetic potential, cell movement, and reproduction. Three lecture hours each week.

IO 208. Biological Literature Search Techniques (1) An introduction to primary literature resources in the biological sciences with emphasis on use of various abstracting and indexing publications. One hour each week.

BIO 216. (Physical Education 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three laboratory hours each week.

BIO 217. (Physical Education 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

BIO 225. Bacteriology (3) Prerequisite: Credit in Biology. Open only to nursing students. Bacteria and related organisms; laboratory work in common bacteriological techniques. Two lecture and three laboratory hours each week.

BIO 235, 236, 237, 238. Elective courses primarily for non-major students, emphasizing "man in the natural world"; two or more to be offered each semester.

BIO 235. Genetics in Human Affairs (3) A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing and understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three lecture hours each week.

BIO 236. Biology of the Sea (3) An introduction to marine environments, the diversity of marine life and the role of man in the utilization of marine resources. Students will become acquainted with local marine habitats, including: salt marshes, sandy beaches, tidal flats and rocky shores. Three lecture hours each week.

BIO 237. Plants and Civilization (3) An introduction to the plant kingdom, the diversity, structure, and function of plant life, and the impact of plants on human culture, history, civilization and economics. Three lecture hours each week.

BIO 238. Microbes and Human Society (3) An introduction to the world of the microorganism, focusing on the diversity, structure and function of microbial life, and spread and control of disease-producing organisms, and the impact of these life forms on human culture, history, and civilization. Three lecture hours each week.

BIO 240-241. Human Anatomy and physiology (4-4) A comprehensive introduction to the anatomy and physiology of the human organism. Organ systems of the body are discussed individually and as parts of interacting groups, with emphasis on the processes which maintain an internal steady-state. Three lecture and three laboratory hours each week.

BIO 246. Microbiology of Human Diseases (4) Prerequisite: Biology 240. An introduction to the biology of microorganisms which affect humans. Emphasizes pathogenic and related microorganisms. The basic microbiological techniques needed to isolate, identify and control microorganisms will be covered. Three lecture and three laboratory hours each week.

BIO 315. Comprehensive Vertebrate Anatomy (4) Prerequisite: Biology 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals;

representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

IO 316. Vetebrate Embryology (4) Prerequisite: Biology 206. Fundamental principles of embryonic development of vertebrate animals; frog, chick, and pig emphasized. Three lecture and three laboratory hours each week.

IO 335. Genetics (3) Prerequisite: Core courses. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action. Three lecture hours each week.

IO 335-51. Genetics Laboratory (1) Prerequisite: Core Courses. Corequisite: Biology 335. Demonstration of basic heredity principles through study of Drosophila and other genetic systems. Three laboratory hours each week.

IO 341. Clinical Calculations (1) Prerequisite: Junior status. Laboratory calculations specifically for Medical Technology majors, although it is open to other majors as well. Reviews basic chemical calculations and introduces the common mathematic applications in medical/biological laboratory. One hour each week.

IO 345. Animal Phsiology (4) Prerequisite: Biology 206, 207, and Chemistry 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

IO 347. Molecular Biology of the Cell (3) Prerequisite: Biology 207 and Chemistry 311-312. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function. Three lecture hours each week.

IO 347-51. Molecular Biology of Cell Laboratory (1) Prerequisite or corequisite: Biology 347. Experiments demonstrating basic phenomena underlying cellular function. Three laboratory hours each week.

IO 349. (Physical Education 349) Applied Physiology of Exercise (4) Prerequisite: Biology 215 or 345. A study of fundamental responses of the human body to stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and three laboratory hours each week.

IO 355. Plant Physiology (4) Prerequisite: Biology 205, 207, and Chemistry 102. A study of plant function at the molecular, cellular, and organismic levels. Emphasis placed on unique aspects of vascular plants. Topics include water relations, solute tranport, photosynthesis, nitrogen metabolism, plant hormones, photocontrol of development, and stress physiology. Three lecture and three laboratory hours each week.

IO 356. Vertebrate Natural History (4) Prerequisite: Biology 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

IO 362. Marine Biology (4) Prerequisite: Biology 205, 206. The costal and oceanic biota and their relationships to the marine environment. Three lecture and three laboratory hours each week.

BIO 365. Invertebrate Zoology (4) Prerequisite: Biology 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histroies. Three lecture and three laboratory hours each week.

BIO 366. Ecology (4) Prerequisite: Core courses and upper level credit. Ecological principles pertaining to both plant and animals. Three lecture and three laboratory hours each week.

BIO 371. Human Fungal Diseases (1) Prerequisite: Biology 205 or 215 or permission of instructor. An in-depth consideration of human mycotic diseases for medical technology, nursing and premedical students. Emphasis will be placed on etiology, predisposing conditions, clinical diagnosis, immunology, serology and therapy of most presently recognized human mycoses. One hour each week.

BIO 375. Plant Morphology (4) Prerequisite: Biology 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants with emphasis on life histories, structure, and development. Three lecture and three laboratory hours each week.

BIO 410. (Marine Biology 512) Electron Microscopy and Cell Ultrastructure (3) Prerequsite: Biology 347. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and function of cell organelles in plants and animals. Three lecture hours each week.

BIO 410-51. (Marine Biology 512-51) Electron Microscopy Laboratory (1) Corequisite: Biology 410 and permission of instructor. Techniques for fixing, embeding, and thin sectioning of tissues will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours each week.

BIO 415. (Marine Biology 520) Vertebrate Histology (4) Prerequsite: Core courses. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

BIO 425. Microbiology (4) Prerequisite: Core courses. A study of nonpathogenic and pathogenic microorganisms with emphasis on the biology of viruses and bacteria. Laboratory sessions will include the techniques required to identify, culture and stain selected microorganisms. Three lecture and three laboratory hours each week.

BIO 430. (Anthropology 430) Evolutionary Biology (3) Prerequisite: Biology 335. Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three lecture hours each week.

BIO 435. (Marine Biology 535) Molecular Genetics (3) Prerequisite: Chemistry 102 and Biology 335 and 347 or 465. An overview of current understanding of the

nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein synthesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity, synthesis, and function. Three lecture hours each week.

IO 436. (Marine Biology 536) Recombinant DNA Techniques (2) Prerequisites: One of the following: Biology 335, 347, or 465. Basic principles and techniques of gene cloning using all three major types of cloning vectors; lambda phase, plasmids, and the single stranded DNA phage M13. Provides hands-on experience in recombinant DNA methology. One lecture and four laboratory hours each week.

IO 440. (Marine Biology 544) Developmental Biology (4) Prerequiste: Core courses. Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, harmones, and environmental control of development. Plant and animal systems studied in modern research literature will be discussed. Three lecture and three laboratory hours each week.

IO 441. Introduction to Immunology (1) Prerequisite or corequisite: Chemistry 211. A general survey of modern immunological principles. One lecture hour each week.

IO 445. (Marine Biology 545) Marine Physiology (4) Prerequisite: Biology 365. Introduction to physiological system characteristic of marine vertebrates and invertebrates. Emphasis on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion, and movement. Three lecture and three laboratory hours each week.

IO 446. Phycology (4) Prerequisite: Biology 205. An introductory survey of algal groups including benthic planktonic freshwater and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

IO 452. (Marine Biology 554) Mammalogy (4) Prerequisite: Core courses. A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptation, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lecture and three laboratory hours each week.

IO 454. (Marine Biology 557) Herpetology (4) Prerequisite: Core courses. Study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

IO 456. (Marine Biology 556) Ornithology (4) Prerequisite: Core courses or consent of instructor. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

BIO 457. (Marine Biology 537) Ichthyology (4) Prerequisite; Core courses. The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

BIO 458. (Marine Biology 565) Fisheries Biology (4) Prerequisite: Biology 457, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, migration, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

BIO 460. (Marine Biology 567) Limnology (4) Prerequisite: Core courses and Chemistry 102. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

BIO 462. Deep Sea Biology (3) Prerequisite: Biology 362. Biology of animals inhabiting the deep sea environment off North Carolina. Emphasizes faunal zonation, abyssal zoo-geography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea. Three lecture hours each week.

BIO 465. (Marine Biology 540) Biochemistry (3) Prerequisite: Chemistry 212. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzymes kinetics; bioenergetics, regulatory mechanisms. Three hours each week.

BIO 466. (Marine Biology 534) Advanced Ecology (4) Prerequisite: Biology 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

BIO 468. (Marine Biology 570) Planktonology (4) Prerequisite: Biology 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

BIO 470. Ecology of Human Populations (3) Prerequisite: Biology 345, 366. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week.

BIO 472. (Marine Biology 572) Marine Phycology (4) Prerequsite: Core courses. An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

BIO 474. (Marine Biology 576) Comparative Morphology of Vascular Plants (4) Prerequisite: Core courses. An in-depth study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

BIO 475. (Marine Biology 574) Plant Taxonomy (4) Prerequisite: Core courses or consent of instructor. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of Southeastern North Carolina. Two lecture and four laboratory hours each week.

BIO 477. Mycology (4) Prerequisite: Biology 205 and 207. Taxonomy, morphology, and ecology of fungi with emphasis on fungal evolution and the importance of fungi to humans. Fungi as casual agents of both plant and animal diseases will also be discussed. Three lecture and three laboratory hours each week.

BIO 480. (Marine Biology 580) Field Studies in Biology (1-6) Prerequisite: Biology 205 and 206, and consent of instructor (Biology 366 and credit in advanced zoology or botany recommended). A research/experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

BIO 481. (Marine Biology 559) Marine Invertebrate Zoology (4) Prerequisite: Core courses. A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

BIO 485. (Marine Biology 585) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

BIO 491. Directed Individual Study (1-3) Prerequisite: Biology 208, junior or senior standing, consent of instructor, and consent of department chairman.

BIO 495. Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Individual reports and group discussions of the results of student field, laboratory and/or library research on selected topics in Biology. May be repeated for a maximum of 3 semester hours.

BIO 499. Honors Work in Biology (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 72.

CHEMISTRY

Dr. Levy, *Chairman*. Dr. Adcock, Dr. Cahill, Dr. Hornack, Ms. R.B. Jones, Dr. S.B. Jones, Dr. Manock, Dr. Martin, Dr. Miller, Dr. Nance, Dr. Reeves, Dr. Sayed, Dr. Ward, Dr. Willey.

Requirements for a concentration in chemistry for the B.A. degree:

Core courses: Chemistry 101-102, 101-51, 102-51, 211-212, 211-51, 212-51, 225, 235, 235-51, 325, 325-51, 355, 445, 495 or Environmental Studies 495, Mathematics 161-162, and Physics 201- 202 or 101-102.

Also required are the courses in one of the following emphasis alternatives:

Education: Education-Psychology block of 31 semester hours, and four of the following courses: Biology 205, 206, 207; Geology 101, 120, and 150; and Physics 260. Students completing this option qualify for teaching certification in chemistry. By including one biology course from Biology 205, 206, 207 and two geology courses from

Geology 101, 120, and 150, students completing this option also qualify for certification in science.

Environmental Science: Chemistry 277, Biology 205 or 206 or 207, Environmental Studies 195, Geology 120, and Statistics 215. Among the core courses, Environmental Studies 495 is required.

Industrial Chemistry: Chemistry 277 and 485, Chemistry 315-316 or 435 and 435-51, Accounting 201, Business 217 or Statistics 215, and Business 313 or Computer Science 111. Chemistry 485 offered Spring 1988 and alternate years.

Marine Science: Chemistry 475, Biology 205 or 206 or Geology 101, 150, and either Biology 362 or Geology 450.

Premedical Science: Chemistry 417 and 465 and Biology 206, 207, and 315. Chemistry 417 offered Spring 1986 and alternate years.

A "C" or better on each Chemistry course.

Requirements for a concentration in Chemistry for the B.S. degree:

Chemistry 101-102, 101-51, 102-51, 211-212, 211-51, 212-51, 225, 235, 235-51, 315-316, 321-322, 321-51, 322-51, 355, 435, 435-51, 445; either 445-51, 476, or 491 (1 hour); 495 and two of the following: 415, 446, 465, 485, and 491 (3 hours). Mathematics 161, 162, 261, and 361 and either Physics 201-202 or Physics 101-102, 206-207. A "C" or better on each Chemistry course. Students working for the B.S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

Chemistry Course Descriptions

CHM 101-102. General Chemistry (3-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with General Chemistry Laboratory (101-51, 102-51). Three hours each week.

CHM 101-51, 102-51. General Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

CHM 105-106-102. General Chemistry (2-2-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Chemistry 105-106 is a slower-paced equivalent of Chemistry 101. General Chemistry Laboratory 101-51 is normally taken concurrently with Chemistry 106, and Chemistry 102-51 is taken with Chemistry 102. Chemistry 105-106, two hours each week. Chemistry 102, three hours each week.

CHM 103. Chemistry in Everyday Life (4) A terminal, relatively non-mathematical one-semester course in chemistry for the non-science major. Topics include atomic and molecular structure as a basis for a general understanding of chemical reactions, drug activity, cancer, nuclear power, pesticides, environmental problems, energy resources, food additives, and the chemical industry. Three lecture and three laboratory/discussion hours each week. May not be taken for credit after Chemistry 102 has been passed.

CHM 115. Fundamentals of General Chemistry (3) Prerequisite or corequisite: Mathematics 111. A one-semester introduction to fundamental laws, principles,

and theories of chemistry, and study of selected elements and compounds. Prepares students for Chemistry 215. May not be taken for credit after another General Chemistry course has been passed. Three lecture hours each week.

HM 115-51. Laboratory for Fundamentals of General Chemistry (1) Corequisite: Chemistry 115. Introduction to techniques and equipment in the chemistry laboratory and interpretation of experimental results. Three laboratory hours each week.

HM 211-212. Organic Chemistry (3-3) Prerequisite: Chemistry 102 and 102-51. Introduction to the chemistry of carbon compounds, including structural theory, synthesis, and reaction mechanisms. Normally taken concurrently with Organic Chemistry Laboratory (211-51, 212-51). Three hours each week.

HM 211-51, 212-51. Organic Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 211-212. Three laboratory hours each week.

HM 215. Fundamentals of Organic and Biological Chemistry (3) Prerequisite: Chemistry 115 and 115-51 or 102 and 102-51. A one-semester introduction to the chemistry of carbon compounds with emphasis on those involved in biological processes, including proteins, carbohydrates, lipids, nucleic acids, vitamins, and hormones. May not be taken for credit after Chemistry 311 has been passed.

HM 215-51. Laboratory for Fundamentals of Organic and Biological Chemistry (1) Corequisite: Chemistry 215. Introduction to equipment and techniques of organic and biological chemistry and interpretation of experimental results. Three laboratory hours each week.

HM 225. Chemical Applications of Microcomputers (1) Prerequisite: Chemistry 102. A study of microcomputer applications in chemistry including an introduction to microcomputer design, peripherals, software, and preventive maintenance. Discussion of microcomputer communications and instrument interfacing. Programming in BASIC with chemical applications. No previous computer experience required. Intended for students who will be taking Chemistry 321, 325, or 335. Two hours each week.

HM 235. Quantitative Analysis (2) Prerequisite: Chemistry 102, 102-51 and 225 or equivalent experience. The theory of (a) gravimetric and volumetric analysis, (b) instrumental techniques, and (c) sampling, sample preparation, and monitoring of air, water, etc. Normally taken concurrently with Quantitative Analysis Laboratory. Two hours each weeek.

HM 235-51. Quantitative Analysis Laboratory (2) Prerequisite or corequisite: Chemistry 235. Four laboratory hours each week.

HM 277. Environmental Chemistry (3) Prerequisite: Chemistry 102. Introduction to the chemistry of air, soil, and natural waters. Processes of environmental degradation, cleanup, and pollution prevention. Selected current topics. Three hours each week.

HM 315-316. Advanced Techniques of Organic Chemistry (2-2) Prerequisite or corequisite: Chemistry 311-312 and 311-51, 312-51. Theory and practice of chro-

matographic methods of separation and spectroscopic methods of identification. One lecture and three laboratory hours each week.

CHM 321. Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent, Physics 202, and Mathematics 261. Properties of matter, kinetic molecular theory, fundamentals of thermodynamics, phase equilibria, thermodynamics of chemical reactions, ionic equilibria, and electrochemistry. Three hours each week.

CHM 322. Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent, Physics 202, and Mathematics 261. Chemical kinetics, introduction to quantum mechanics, atomic and molecular structure, and spectroscopy. Three hours each week.

CHM 321-51, 322-51. Physical Chemistry Laboratory (1-1). Prerequisite or corequisite: Chemistry 321 and 322, respectively. Three laboratory hours each week.

CHM 325. Brief Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent experience, one sequence in Physics and Mathematics 151 or 161. An abbreviated course in fundamentals of physical chemistry. Normally taken concurrently with Brief Physical Chemistry Laboratory (325-51). May not be taken for credit after 321 has been passed. Three hours each week.

CHM 325-51. Brief Physical Chemistry Laboratory (1) Prerequisite or corequisite: Chemistry 325. Three laboratory hours each week.

CHM 355. History and Literature of Chemistry (1) Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry. One hour each week.

CHM 415. Advanced Organic Chemistry (3) Prerequisite: Chemistry 312. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods. Three hours each week.

CHM 417. Medicinal Chemistry (3) Prerequisite: Chemistry 312. Systematic study of the chemistry, as well as the biological activity, or hormones, vitamins, drugs affecting the nervous system, and other miscellaneous agents. Prior Chemistry 415 or Chemistry 465 is recommended. Three hours each week. Spring 1988 and alternate years.

CHM 435. Advanced Analytical Chemistry (2) Prerequisite: Chemistry 333 or 335, 321 or 325, and their laboratories. Theory of modern analytical instrumentation and techniques. Normally taken concurrently with Advanced Analytical Chemistry Laboratory (435-51). Two hours each week.

CHM 435-51. Advanced Analytical Chemistry Laboratory (2) Prerequisite or corequisite: Chemistry 435. Four laboratory hours each week.

CHM 445. Inorganic Chemistry (3) Prerequisite: Chemistry 321 or 325. Study of periodic relationships: crystal lattice theory; transition metals and ions; crystal field theory; organometallic structures and reactions; and reaction mechanisms. Three hours each week.

CHM 445-51. Inorganic Synthesis (1) Prerequisite or corequisite: Chemistry 445. Synthesis and techniques in inorganic chemistry. Normally taken concurrently with Inorganic Chemistry (445). Three laboratory hours each week.

CHM 446. Advanced Inorganic Chemistry (3) Prerequisite: Chemistry 445. Topics in inorganic chemistry, including ligand field theory: chemical applications of group theory; hybridization of orbitals and molecular orbital theory, molecular vibration, spectroscopy, and principles of quantum mechanics. This course will emphasize these topics in the framework of molecular symmetry. Three hours each week.

CHM 465. Biochemistry (3) Prerequisite: Chemistry 312 and either 321 or 325. Study of the physical structures of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins and minerals and the chemical principles governing their biological activity. Special emphasis will be given to enzyme kinetics, solution properties of macromolecules, and the thermodynamic principles of intermediary metabolism. Three hours each week.

CHM 475. (Marine Biology 589) Chemical Oceanography (3) Prerequisite: Chemistry 102. Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week. Spring 1988 and alternate years.

CHM 476. (Marine Biology 588) Chemical Analysis of Natural Waters (2) Prerequisite: one of the following: Chemistry 335, 377, or 475. Standard chemical methods will be used to analyze natural water samples, including several fresh water samples and seawater. Methods will be evaluated with respect to appropriate applications. Analyses to be studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended material, and dissolved metals. One lecture and three laboratory hours each week. Spring 1989 and alternate years.

CHM 485. Industrial Chemistry (3) Prerequisite: Chemistry 312 and either 321 or 325. The characteristics of large scale chemical processes, including materials of construction, reactor design, fluid transport, solvent recovery and reuse, quality control, and environmental impact. Specific example processes include the conversion of raw petroleum feedstocks to plastics, fibers, and fuels, and the production of ethical drugs. Three hours each week. Spring 1989 and alternate years.

CHM 491. Directed Individual Study (1-3) Prerequiste: Junior or senior standing and consent of department chairman.

CHM 495. Senior Seminar (1-3) Prerequisite: Chemistry 355 and 25 semester hours of chemistry courses. Discussion of selected topics. One hour each week.

CHM 499. Honors Work in Chemistry (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 72.

COMPUTER SCIENCE

(Mathematical Sciences)

CREATIVE ARTS

Mr. Sporre, *Chairman.*

The Department of Creative Arts is comprised of divisions of Art, Drama, Music, and Speech Communication. The department offers concentrations leading to the B.A. degree in (1) Creative Arts in Art, Drama, and Music, and (2) Speech Communication.

ART

Ms. Conner, Mr. Furst, Mr. LeQuire, Dr. Myers.

Requirements for a concentration in Creative Arts-Art for the B.A. degree: Art 101, 102, 111, 112; either Art 211 or 212; six hours chosen from Art 201, 202, 204; three hours of three or four hundred level art history; three hours chosen from Music 261 or 262; three hours chosen from Drama 321, 322, 323; six hours chosen from practical and theoretical courses in Drama or Music (histories not included); twenty-four hours chosen from three studio areas. Electives chosen in consultation with the advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Art Course Descriptions

(Department of Creative Arts)

ART 101,102. Design (3,3) 101: Study of the principles of two-dimensional design and introduction to color theory. **102:** Study of the concepts of three-dimensional design and of the nature of problem solving. One lecture and six studio hours each week.

ART 111, 112. Drawing Fundamentals (3, 3) Fundamentals of drawing using various media: charcoal, pencil, ink, etc. Four studio hours each week.

ART 201. Ancient World Through Medieval Period (3) A survey of art from ancient through medieval with an emphasis on major artistic developments in their historical and cultural context from 20,000 B.C. to 1400 A.D.

ART 202. Renaissance Through Contemporary Art (3) A survey of art from the Renaissance to the present with an emphasis on major artistic developments in their historical and cultural context from 1400 A.D. to the present time.

ART 204. Survey of American Art (3) A survey of American art from Colonial times to the present, with an emphasis on major examples of architecture, painting, sculpture, graphics and the decorative arts. Three hours each week.

ART 211. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, geometric form and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week. Fall.

ART 212. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, anatomy, and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week. Spring.

ART 221, 222. Beginning Ceramics (3, 3) Introduction to three-dimensional form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week.

ART 231-232. Beginning Printmaking (3-3) Prerequisite: Art 101 or 111 or 112 or permission of instructor. Problems in relief and intaglio using a variety of materials. May be taken in any sequence. Six studio hours per week.

ART 241, 242. Beginning Painting (3, 3) A beginning course investigating a variety of media, techniques, and subjects. Six studio hours each week.

ART 251, 252. Beginning Sculpture (3, 3) Prerequisite: Art 102 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week.

ART 306. Italian Renaissance Art (3) Prerequisite: Art 201, 202 or permission of instructor. A study of the development of art in Italy, 1200-1600 A.D., with an emphasis on painting, sculpture, architecture and graphics as related to Renaissance culture.

ART 307. History of Printmaking (3) Survey of printed pictures from the 15th century to the present. An appreciation of the evolution of printmaking from its practical applications to Fine Art, including major artists as printmakers. Studio experience optional.

ART 308. 20th Century Art (3) Prerequisite: Art 201, 202, 204, or permission of instructor. A study of movements and issues in art from 1900 to the present in Europe and the United States with an emphasis on developments as they contribute to contemporary art. Painting, sculpture, architecture, graphics and other vehicles of artistic expression will be discussed as they relate to these developments.

ART 311. Intermediate Life Drawing (3) Prerequisite: Art 211, 212 or permission of instructor. Drawing from the model: structure, composition, development of perssonal expression. Six studio hours per week. Fall.

ART 312. Intermediate Life Drawing (3) Prerequisite: Art 211, 212 or permission of instructor. Drawing from the model: structure, anatomy, development of personal expression. Six studio hours per week. Spring.

ART 321, 322. Intermediate Ceramics (3, 3) Prerequisite: Art 222 or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clays and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

ART 331-332. Intermediate Printmaking (3-3) Prerequisite: Art 231-232 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen. May be taken in any sequence. Six studio hours per week.

ART 341-342. Intermediate Painting (3-3) Prerequisite: Art 101, 242 or consent of instructor. Further exploration of painting techniques and expression. Six studio hours each week.

ART 351, 352. Intermediate Sculpture (3, 3) Prerequisite: Art 252 or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

ART 385. Art in the Elementary School (3) Appreciation of art designed for elementary teachers, including studio work and art education theory. One lecture and three studio hours each week.

ART 387. (Anthropolgy 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition and education. Three hours each week.

ART 387-51. (Anthropology 387-51) Museum Studies Practicum (1) Corequisite: Art 387 (Ant 387). Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ART 411. Advanced Life Drawing (3) Prerequisite: Art 311, 312 or permission of instructor. Drawing from the model: drawing as a finished product, exploration of drawing techniques. Six studio hours per week.

ART 412. Advanced Drawing (3) Prerequisite: Art 411 or permission of instructor. Drawing as a finished product, exploration of drawing techniques and subject matter. Six studio hours per week.

ART 421, 422. Advanced Ceramics (3, 3) Prerequisite: Art 322 or consent of instructor. Further experience in three-dimensional form and design and emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week.

ART 431-432. Advanced Printmaking (3-3) Prerequisite: Art 331 and 332 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen and collograph. May be taken in any sequence. Six studio hours each week.

ART 441-442. Advanced Painting (3-3) Prerequisite: Art 342 or consent of instructor. Emphasis on techniques and expression. Six studio hours each week.

ART 451,452. Advanced Sculpture (3,3) Prerequisite: Art 352 or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week.

ART 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ART 495. Seminar in Art (1-3). Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

For 292 and 492, see explanation on p. 72.

DRAMA

Ms. DeMoss, Mr. Macie, Dr. Rogers, Mr. Sporre, Mr. Swink, Dr. Theodore.

Requirements for a concentration in Creative Arts-Drama for the B.A. degree: Drama 201, 205, 130 or 231, 307; six credits from Drama 321 or 322 or 323; three redits from Art 101 or 102 or 201 or 202 or 204; three credits from Music 105 or 115; ine credits of electives in Creative Arts outside of Drama. An option comprising one f the following also must be fulfilled. Option 1 (Acting): Drama 206, 232 (4 credits), 33 (4 credits), 355, and Communication 230. Option 2 (Directing): Drama 232 (4 redits), 306, 355, 455, 461 or 462. Option 3 (Design/Technical): Drama 202, 206, 305, 06, 405, 406. Option 4 (History and Theory): Drama 321 or 322 or 323; 345, 355, 461, 62. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Drama Course Descriptions

(Department of Creative Arts)

DRA 130. Improvisation (3) Exploration of spontaneous dramatic playing through intensive exercises and theatre games meant to generate greater individual freedom and self- discipline, as well as to employ improvisation techniques in acting to develop characterization, stage movement, and ensemble performance.

DRA 135. (Physical Education 102) Dance Techniques (1) Basic dance technique on a beginner level, including ballet, jazz, and modern dance.

DRA 136. Movement Exploration (2) Exploration of the relationship of dance to other art forms. Study through modern and creative dance techniques of the body's potential as a tool for creative expression, emphasizing the opportunity to demonstrate interrelationships in the arts through weekly choreographic assignments.

DRA 201. Technical Production I (3) Basic principles of scenic materials and equipment. Use of materials, methods of construction, and handling of scenery and properties. One lecture and six laboratory hours per week. Participation in the University Theatre productions required.

DRA 202. Technical Production II (3) Prerequisite: Drama 201 or consent of instructor. Practical training in shop organization and technical production, plus basic principles of theatrical graphics. Two lecture and four laboratory hours each week. Participation in University Theatre productions required.

DRA 205. Stage Make-up (2) Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

DRA 206. Costume History and Construction (3) An examination of major historical costume styles. The student also will learn basic costume construction techniques, applying those techniques to individual projects as well as to the costumes for departmental productions. Two lecture hours and three laboratory hours per week.

DRA 221. Introduction to the Theatre (3) Appreciation of theatre through an understanding of its artistic elements, history, dramatic literature, and audience involvement. Three hours per week.

DRA 225. History and Appreciation of Film (3) A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

DRA 231. Acting I (4) Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and 2½ laboratory hours each week.

DRA 232. Acting II (4) Prerequisite: Acting I and/or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and 2½ laboratory hours each week.

DRA 235. Dance Technique II (1) Prerequisite: Dance Technique I or equivalent and consent of instructor. Basic dance technique on an intermediate level.

DRA 305. Scenic Design (3) Prerequisite: Drama 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, techniques application, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

DRA 306. Stage Lighting (3) Prerequisite: Drama 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundamentals of electricity, lighting equipment, the use of color, and the basic principles of design. Two lecture and two laboratory hours each week. Participation in University Theatre productions required.

DRA 307. Theatre Management (3) Course focuses on various aspects of management: publicity, business management, public relations, and house management.

DRA 321, 322, 323. Theatre History (3,3,3,) 321: Pre-Greek beginnings to seventeenth century. 322: Seventeenth century to nineteenth century. 323: Late nineteenth century to the present day. Three hours each week.

DRA 333. Acting III (1-4) Prerequisite: Acting I and II and/or consent of instructor. Scene study. A contractual course with individual student commitmennt concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

DRA 345. Playwriting I (3) Analysis of one-act plays and their construction; the writing of an original one-act play required. Three hours each week.

RA 355. Directing I (3) Fundamental principles of directing with emphasis on one-act productions. Three hours each week.

RA 405. Scenic Design II (3) Prerequisite: Drama 305 or consent of instructor. An advanced approach to historical styles and special design problems, including the relationship of architecture to the mise en scene.

RA 406. Costume Design (3) Application of the principles of theatrical design to stage costuming. Three hours per week.

RA 425. Aesthetics of Film (3) A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

RA 445. Playwriting II (3) Prerequisite: Drama 345 or permission of instructor. Advanced techniques of playwriting with emphasis on full length play; the writing of an original full length play. Three hours each week.

RA 455. Directing II (3) Prerequisite: Drama 355. Advanced techniques in the direction of plays for the stage. Three hours each week.

RA 461, 462. Seminar in Dramatic Theory (3, 3) Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present. Three hours each week.

RA 485. Senior Project (3) Every major may choose a specific area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Creative Arts for approval prior to the semester during which the project will be attempted.

RA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

RA 495. Theatre Seminars (1-3)

RA 499. Honors Work in Drama (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 72.

MUSIC

Ir. Bongiorno, Dr. Deas, Dr. Errante, Dr. Hickman, Dr. Martin, Ms. Mathew, Mr. IcLamb, Dr. Rozier.

Requirements for a Concentration in Creative Arts-Music for the B.A. degree: tudents may emphasize either General Music or Performance. Core courses, common either emphasis: Music 101, 102, 201, 202, 261, 262.

General Music: In addition to the core requirements the general music student will be required to complete three hours of Art History (201 or 202) plus three hours of Introduction to Theatre (DRA 221); 10 hours of applied music in the principal area, at least two hours at the 300 level; four hours of applied msuic in a second area; six hours of major ensemble (keyboard students may substitute up to two hours of 082 and/or 131); nine hours of Music Electives; and Recital (at least twenty minutes) or Thesis.

Performance: In addition to the core requirements, the student who emphasizes performance must complete an additional five hours of Music Theory (MUS 301 and choice of 302 or 303); six additional hours of Music History (MUS 361, 362, 363); 22 hours of applied music in the principal area (at least 12 hours at the 300 level). Students pursuing the composition emphasis noted below will substitute 16 hours of composition and six hours of applied music in a secondary area (at least two hours at the 300 level) for the 22 hour applied music requirement; 8 hours of major ensemble (three of these hours can be counted toward basic studies requirements); two recitals (the Junior Recital is normally a half recital); three hours from ART 201, 202, or DRA 221, (also to be counted toward basic studies requirements); and 21 hours of music electives chosen according to the following emphases:

(1) Vocal Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 271, 272, 273, 274, 379, and eight hours of free electives.

(2) Keyboard Performance: Six hours of secondary applied music (not to include class piano); MUS 285; 275 or 276; 375 or 376; and six hours of free music electives.

(3) Keyboard Performance with Pedagogy: Three hours of secondary applied music (not to include class piano), MUS 285, 275, 276, 375, 376, two semesters of 475, and three hours of free music electives. Also, the major ensemble requirement stated above is reduced to six hours (three to be counted toward basic sudies requirements) of which only two hours can be substituted by 082 or 131.

(4) Instrumental Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 371, and 12 hours of free music electives.

(5) Composition: MUS 302 or 303, MUS 306, 307, seven hours of conducting, and eight hours of free music electives. The Junior Recital is a half recital in the composer's secondary appliedarea. The Senior Recital is to be in composition and should include the composer as a participant.

(6) Performance-Church Music: Two hours of secondary applied (the vocalist must take two hours in piano beyond the proficiency level, the keyboard student must take at least two hours in voice and complete the sophomore level of private voice study); MUS 285; 485 (choral); 255; 355; two hours from 243, 245, 247, or 249; 377, and four hours of free music electives. (Keyboard students must take 257 as part of the electives)

A "C" or better grade must be achieved in all courses taken to meet the Creative Arts degree requirements. All Creative Arts-Music majors must pass the piano proficiency exam and the listening exams. Those who do not pass the piano proficiency examination upon entering the music program are required to take class piano until the exam is successfully completed. The student must satisfactorily meet performance seminar and recital attendance reuirements. Admission to the music program requires an audition, interview, and theory placement test.

Music Course Descriptions

(Department of Creative Arts)

MUS 082. Accompanying (1) Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Student will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

MUS 083. UNCW Chamber Singers (1) Select group drawn from the concert choir (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week. Accumulative credit limited to eight semester hours.

MUS 084. Jazz Ensemble (1) Prerequisite: Consent of instructor. The study and performance of jazz techniques and interpretation of popular styles in large and/or small ensemble. Open to any student who has had instrumental experience. Participation is determined by audition at the beginning of each semester. One 2-hour rehearsal per week. Accumulative credit limited to eight semester hours.

MUS 085. Wind Ensemble (1) Open to any student who has had previous training or experience in instrumental music and who has the consent of the director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 086. Concert Choir (1) Prerequisite: Auditions by director. Group studies and performs choral music of various historical periods and styles. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 087. Orchestra (1) Tuesdays 7:30-9:30 p.m. Auditions by director. Study and performance of the orchestral literature performed with the UNCW/Community Orchestra which meets for a minimum of two hours per week and gives an average of four performances per year. Accumulative credit limited to eight semester hours.

MUS 101. Theory I (3) Prerequisite: Placement test. Corequisite: Music 101-51. An indepth study of the basic materials of music, including the physics of sound, time classification, notation of pitch and rhythm, intervals, scales and modes, key signatures and triads. Three hours per week.

MUS 101-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 101. Includes melodic, harmonic and rhythmic dictation, singing and performing at the keyboard materials introduced in Music 101-01. Two hours per week.

MUS 102. Theory I (3) Prerequisite: Music 101. Corequisite: Music 102-51. A study of tonality, triads in inversions, phrase structure and cadences, harmonic progression, the technique of harmonization and nonharmonic tones. Three hours per week.

MUS 102-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 102. Application through dictation, Sight-Singing and keyboard exercises the materials introduced in Music 102-01. Two hours per week.

MUS 105. Rudiments of Music (3) A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, Sight-Singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Three hours each week.

MUS 115. Survey of Music Literature (3) Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required. Three hours each week.

MUS 116. History of Jazz (3) A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required. Three hours each week.

MUS 117. American Music (3) A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required. Three hours each week.

MUS 118. Survey of Electronic Music (3) A non-technical survey of electronic music, analytical study of compositions from recordings, and basic compositional methods utilizing the facilities of the UNCW Electronic Music Studio. Technical knowledge of music not required.

MUS 131. Chamber Music Workshop (1) Open to any student who has had previous training and experience and who has the consent of the chairman of the department. Small instrumental and vocal ensembles. Type of group will depend upon availability of personnel and faculty instructor. Two hours per week. Accumulative credit.

MUS 133. Opera Workshop (3) Prerequisite: Music 195 (Voice) or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week.

MUS 134. Choral Workshop (3) Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Three hours each week.

MUS 141-142. Class Piano I (1-1) Prerequisite: Consent of instructor. Recommended for all students enrolled in Music Theory 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

MUS 143-144. Class Guitar (1-1) Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

MUS 146. Class Voice (1) Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

MUS 195. Lower Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viol	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 196. Lower Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 197. Lower Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 201. Theory II (3) Prerequisite: Music 102. Corequisite: Music 201-51. A study of the musical process as observed in the literature of the common practice period. Based upon both structural and functional analysis as well as problem solving and controlled composition exercises. Includes secondary dominants, chromatic approach chords and the concept of modulation. Three hours per week.

MUS 201-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 102. Corequisite Music 201. Includes melodic and rhythmic dictation, singing and memorizing various modes,scales and broken chord patterns in root position, harmonic dictation with emphasis on modulation. Two hours per week.

MUS 202. Music Theory II (3) Prerequisite: Music 201. Corequisite Music 202-51. A study of the musical process as observed in the late common practice and early twentieth century periods. The development further of the concept of modulation and chromatic harmonies and introduction to such practices as quartal and polytonal harmonies. Three hours per week.

MUS 202-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 201. Corequisite: Music 202. Continuation of Music 201-51 with an emphasis on inversions and chromatically derived patterns. Utilization of quartal and polytonal harmonies. Two hours per week.

MUS 203. Composition (1 or 3) Prerequisite: Consent of instructor. A beginning study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 218. Electronic Music Composition (2) Prerequisite: Music 118. A study of basic recording and synthesizer techniques utilizing the facilities of the UNCW Electronic Music Studio. Two hours per week.

MUS 235. Jazz Improvisation (2) Prerequisite: Music 101-102 or consent of instructor. Development of materials and practices for improvisational skills in the jazz idiom. Open to any student with instrumental experience. Presentation in both lecture and performance format. Two one (1) hour meetings per week.

MUS 236. Jazz Improvisation II (2) Prerequisite: Music 235 or consent of the instructor. Materials and practices for further development of improvisational skills in the jazz idiom. Presentation in both lecture and performance format. Two one (1) hour meetings each week.

MUS 241-242. Class Piano II (1-1) Prerequisite: Music 142 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

MUS 243-244. Class Strings (1-1) Prerequisite: Consent of instructor. Class instruction in violin, viola, cello, or string bass. Two laboratory hours each week.

MUS 245. Woodwind Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 247. Brass Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 249. Percussion Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 255. Church Music Literature (3) Prerequisite: Knowledge of music fundamentals. A survey of music literature of the western church including a study of the historical function of various musical idioms and styles.

MUS 257. Service Playing (2) Prerequisite: Permission of instructor. Practical study of service playing: organ improvisations, modulations, and related problems. Two hours per week.

MUS 261, 262. Introduction to Music History I & II (3,3) A two-semester overview of music history and literature stressing the stylistic developments of music and related social and historical events. 261: Music history and literature of the Middle Ages, Renaissance, and Baroque. 262: Music history and literature of the Classic, Romantic, and Contemporary periods. Three hours per week.

MUS 271. Italian Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of Italian diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 272. English Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of English diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours per week instruction.

MUS 273. German Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of German diction for singers with use of the

international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

US 274. French Diction for Singers (1) Prerequisite: Music major only/consent of instructor. Basic principles of French diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

US 275, 276. Keyboard Literature I & II (3,3) Prerequisite: One year private keyboard instruction at the college level. A survey of keyboard literature in relation to contemporary pedagogical use. Historical evolution of instrument design included. 275: Beginning and intermediate keyboard literature of the 18th, 19th and 20th centuries. 276: Advanced literature of the 18th, 19th and 20th centuries. Three hours per week.

US 285. Basic Conducting (3) Prerequisite: Music 102, 142. An examination of conducting techniques, score reading techniques and an understanding of terminology.

US 301. Form/Analysis (3) Prerequisite: Music 202. A study of forms common in Western music from 1600 to the present and the development of skills in analysis. Three hours each week.

US 302. Modal Counterpoint (2) Prerequisite: Music 301. A study of strict contrapuntal practice as observed in the church music of Palestrina, Lassus and other 16th century composers. Includes writing in 2, 3 and 4 "free" voices with and without text as well as 2 & 3 part canons. Techniques of melodic and countrapuntal inversion are also covered. Two hours per week.

US 303. Tonal Counterpoint (2) Prerequisite: Music 301. A study of contrapuntal practice as observed in the music of J. S. Bach and other 17th and 18th century composers. Includes analysis and composition of both Invention and Fugue. Also includes contrapuntal and melodic inversion. Two hours per week.

US 306. Orchestration (2) Prerequisite: Music 243-244, 245, 247, and 249, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music. Two hours each week.

US 307. Twentieth Century Idioms (2) Prerequisite: Music 301. An indepth study of musical practice from 1900 to the present based upon both structural and functional analysis as well as problem solving and controlled compositional exercises.. Includes quartal harmonies, mixed meters, texture and timbre as musical parameters, indeterminacy and serialism. Two hours per week.

US 325. Music Education for Elementary Teachers (3) Prerequisite: Music 105 (recommended) or Music 115. Approach to the teaching of music at the elementary level, including the use of piano laboratory. Three hours each week.

US 326. Methods of Teaching Music in the Elementary Schools (K-6) (2) Prerequisite: Consent of instructor; open only to currently enrolled music education majors. The purpose of this course is to study the scope and goals of the elementary music curriculum, the organization of musical content with regard to

learning theories and developmental characteristics of the child, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on some of the innovative ideas in the field, including techniques developed by Orff and Kodaly. The course will also include an evaluation of music textbooks and materials for this level.

MUS 327. Methods of Teaching Music in Secondary Schools (7-12) (2) Prerequisite: Open only to currently enrolled music education majors with consent of instructor. The purpose of this course is to study the scope and goals of the secondary music curriculum, the organization of musical content with regard to learning theories and behavioral characteristics of the adolescent, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on methods for teaching music in the classroom. The course will also include an evaluation of music textbooks and materials for this level.

MUS 355. Music in Religious Institutions (3) Prerequisite: Music 255. A study of the philosophic and administrative dimensions of music in religious institutions. Topics include historical antecedents and contemporary patterns. Three hours per week.

MUS 361, 362, 363. History of Music (2,2,2) Prerequisite: Music 261, 262 and for 362 & 363, only, Music 301. 361: Stylistic development of music of the Medieval and Renaissance eras. 362: Music history and literature of the 17th and 18th centuries. 363: Music history and literature of the 19th and 20th centuries. Two hours per week.

MUS 364. Contemporary Music Literature (2) Prerequisite: Music 301 and 363. A study of music from the contemporary era.

MUS 371. Instrumental Pedagogy and Literature (2) Prerequisite: Two years of college instrumental applied music. Problems, materials, and methods in teaching instruments to private students. Two hours per week.

MUS 373. Instrumental Methods (2) Prerequisite: Consent of instructor; Music 285, 243, 245, 247, 249. Methods of teaching instrumental classes and ensembles from elementary through senior high school. Includes repertoire, marching band techniques, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship, and practical aspects of teaching instrumental music.

MUS 375. Piano Pedagogy I (3) Prerequisite: Two years private piano instruction at college level. Problems, materials, and methods in teaching beginning piano to children.

MUS 376. Piano Pedagogy II (3) Prerequisite: Two years private piano instruction at college level. Problems, materials, and methods in teaching piano to older students of high school and early college age.

MUS 377. Choral Methods (2) Prerequisite: Consent of instructor; Music 285. Methods of teaching choral ensembles from elementary through senior high school. Includes repertoire, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship and the practical aspects of teaching choral music.

MUS 379. Vocal Pedagogy and Literature (2) Prerequisite: Two years of college vocal study. Basic procedures of teaching voice. Materials for solo voice studied and performed. Two hours each week.

MUS 393. Junior Recital (1). Prerequisite: Consent of faculty. A performance of at least 20 minutes of repertoire selected from the appropriate levels of difficulty. May be repeated once for credit.

MUS 395. Upper Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cell	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 396. Upper Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 397. Upper Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 403. Advanced Composition (3) Prerequisite: Music 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 475. Practicum in Applied Teaching (1) Prerequisite: Music 371, or 375-376, or 379. Students will develop and implement a private studio under the guidance of a faculty member. One hour per week.

MUS 485. Advanced Conducting (2) Prerequisite: Music 285. Study in either choral or instrumental techniques. This course enables the student to work with the appropriate ensemble using selected literature, i.e., orchestral, wind ensemble or vocal literature, for the various mediums.

MUS 490. Thesis (1) A research thesis in a subject to be determined in consultation with the music faculty during the semester preceding the taking of this course.

MUS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MUS 493. Senior Recital (1) Consent of the music faculty. A performance of at least 40 minutes of repertoire selected from the appropriate levels of difficulty. May be repeated once for credit.

MUS 495. Seminar in Music (1-3) Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

MUS 499. Honors Work in Music (2-3) Prerequisite: Eligibility for honors program, and junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 72.

SPEECH COMMUNICATION

Dr. Welch, *Coordinator.* Mr. Harrington, Ms. Noor Al-Deen, Dr. Rohler, Dr. Tallant, Mr. Trimble, Dr. Weiss.

Requirements for a concentration in Speech Communication for the B.A. degree: Communication 105, 221, 230, 275, 327, 340, 341; Anthropology 208; English 320; Philosophy and Religion 110; Psychology 311; and six hours of Modern Language or Computer Science Language. The collateral area (18 hours) will be determined individually in consultation with the advisor. A grade of "C" or better on all required courses in the concentration.

Speech Communication Course Descriptions

(Department of Creative Arts)

COM 105. Fundamentals of Speech (3) Principles and basic skills in speaking and listening; classroom exercise and discussion. Three hours each week.

COM 116. Oral Interpretation of Literature (3) The study and analysis of literature through the medium of oral performance. Three hours each week.

COM 170. Intercollegiate Forensics (1) One hour of academic credit each semester (up to eight hours total) for participation in debate and/or individual speaking events on the Intercollegiate Forensics Team. One hour each weeek.

COM 210. Oral Interpretation of Children's Literature (3) Focuses on several methods of performance of children's literature. Storytelling, solo performance and group performance will be covered. Areas of emphasis will be selection of suitable material, cutting of the material and techniques of performance. Three hours each week.

COM 220. Interpersonal Communication (3) This course focuses upon the communication process in face-to-face situations. It is designed to improve the everyday communication skills of the student through a greater understanding of the interpersonal process. Emphasis is placed upon the development of interviewing techniques, information acquisition and persuasive dialogues. Three hours each week.

COM 221. Group Discussion (3) Prerequisite: Communication 105 or consent of instructor. The study of and practice in oral group methodologies, including panel, forum and symposium speaking. Three hours each week.

COM 230. Voice and Diction (3) Principles and use of the voice exercises in vocal variety, articulation and pronunciation. Three hours each week.

COM 265. Survey of Mass Communications (3) An examination of U.S. radio, television, newspaper, magazines and film. Emphasis on their development, functions, theoretical foundations, present uses, and effects. Special project required. Three hours each week.

COM 268. Broadcast Journalism (3) Prerequisite: English 102. Principles and basic skills in writing for the broadcast media; includes exercises inside and outside of classroom. Emphasis on broadcast news writing, news coverage, news editing, and news problems and potentials. Three hours each week.

COM 270. Parliamentary Procedure (1) Principles and rules governing deliberative assemblies. One hour each week.

COM 275. The Art of Persuasive Speech (3) Prerequisite: Communication 105 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways. Three hours each week.

COM 276. Debate (3) Prerequisite: Communication 105, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution. Three hours each week.

COM 290. Rhetoric of Popular Culture (3) Analysis will focus upon an understanding of the various persuasive influences inherent in modern society. Areas of emphasis will include analysis of persuasive appeals in advertising, music, art, movies, theatre, social movements, politics, literature, and sports. Three hours each week.

COM 316. Advanced Oral Interpretation (3) Prerequisite: Communication 116 or by consent of the instructor. Survey of interpretation history and theory; performance emphasis on such advanced projects as program creation, book reviewing and adapting prose and poetry. Three hours each week.

COM 325. Business and Professional Speaking (3) Prerequisite: Communication 105. Public speaking skills in directed experiences especially related to speech communication tasks which accompany the role of a business or professional person. Topics include the delivery of briefings, manuscript speeches, conferences, interviewing, salesmanship, use of electronic extenders and visual aids. Three hours each week.

COM 327. Organizational Communication (3) Prerequisite: Communication 105. The study of communication in organizations; theories of communication and their applications to organizations. Three hours each week.

COM 340. Communication Theory (3) Prerequisite: Communication 105 or consent of instructor. The course explores theoretical perspectives concerning how and why people communicate. Emphasisis placed on a greater understanding of the human communication process. Three hours each week.

COM 341. Rhetorical Theory (3) Prerequisites: Communication 105, Communication 340 or consent of the instructor. Introduction to the basic classical and contemporary theories of rhetoric from Plato through the present. Three hourse each week.

COM 345. Speech Writing (3). Prerequisite: Communication 105, English 102. The theory and practice of speech writing with special emphasis on writing speeches for others.

COM 365. The Broadcast Regulatory Process (3) Prerequisite: Communications 265, 268, or consent of instructor. Survey of broadcast history, law, politics, and regulation with emphasis on the roles of the Federal Communications Commission, the White House, Congress, courts, citizen's groups, and the broadcast industry itself in creating and enforcing broadcast regulations.

COM 390. Intercultural Communication (3) Prerequisite: Communication 105, Communication 220 or consent of instructor. Communication factors unique to interactions between members of different cultures, appropriate rhetorical and practical knowledge about the intercultural communication process, as well as an understanding of international communication. Three hours each week.

COM 415. Readers Theatre (3) Prerequisite: Communication 116. The application of oral interpretation techniques to group readings. Students will be involved in both technical and performance aspects of production. Three hours each week.

COM 421. Communication for Public Relations (3) Prerequisite: Any one of the following: Communication 265, 268, 275, 327, 340, 365, 465 or English 202. Principles of public relations, with special emphasis on those theories and skills relevant to the communication functions of businesses and non-profit organizations. Three hours each week.

COM 450. History of Rhetoric and Public Address (3) A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address. Three hours each week.

COM 465. Mass Communications in Society (3) Prerequisite: Communication 265. A seminar encompassing the development of mass communications, the obligations of the press, radio and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications. Three hours each week.

COM 467. Broadcast Advertising and Audience Analysis (3) Prerequisite: Communication 265 or consent of instructor. Broadcast advertising and audiences from a theoretical and practical perspective. Mass communication theories applied in a practical setting as students conduct a major audience analysis for a mass media organization. Includes analysis and use of survey/research methodology.

COM 485. Senior Project (3)

COM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the department chairman.

OM 495. Seminar in Speech Communication (3) Prerequisite: Senior standing and consent of instructor. Special topics in communication which are not dealt with in other courses.

OM 498. Internship in Speech Communication (3-6) Prerequisite: Permission of Speech Communication faculty and senior status. A program of work and study conducted within an agency and/or setting which provides practical experience with observation of applications of theoretical concepts in Speech Communication. Open to qualified students with permission of the Speech Communication faculty.

OM 499. Honors Work in Communication (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 72.

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA

(See Creative Arts)

EARTH SCIENCES

r. Zullo, *Chairman.* Dr. Ainsley, Dr. Cleary, Dr. Dockal, Dr. Hall, Dr. Harris, Dr. untsman, Dr. Keifer, Dr. Laws, Dr. Metzger, Dr. Randall, Dr. Spyrou, Dr. Thayer.

The Department of Earth Sciences offers concentrations in Geography and Geology hich prepare the student for advanced studies or for teaching, research and technical areers available to one who holds the baccalaureate degree.

Requirements for a concentration in Geography for the B.A. degree: Core requirements: Geography 110, 130, 140, 270, 320, 322, 325, 429, 495. Collateral requirements are Computer Science 111 and Statistics 215. In addition there are two options, escribed below, one of which a student must elect in order to complete the degree equirements. A "C" (2.0) or better average on all courses taken within the department nd a "C" (2.0) or better average on all required courses above the 100 level in the epartment.

ption 1.

This option provides a broad, flexible program to meet personal educational goals nd interests including careers and graduate study in geography.

(a) Physical Geography: 7 hours selected from Geography 230, 333, 335, 336 and 432.

(b) Economic and Urban Geography: 6 hours selected from Geography 312, 315 and 317.

(c) Applied Geography and Planning: 6 hours selected from Geography 372, 375 and 378.

(d) Cultural Geography: 9 hours, including 3 hours in regional geography, selected from Geography 240, 255, 282, 350, 352, 382, and 385.

Option 2.

This option is designed specifically for students interested in pursuing careers and/or graduate study in planning and applied geography.

(a) Geography 312, 317, 333 and 335.
(b) Geography 496 or 498 and 6 hours selected from Geography 372, 375, 378.
(c) 6 hours selected from Economics 105, Political Science 207, 308, and Sociology 315, 385.

Geography Course Descriptions

(Department of Earth Sciences)

GGY 110. Economic Geography (3) Human economic activities, their location and relationships to physical and economic conditions of the environment. Three hours each week.

GGY 130. Introduction to Physical Geography (4) Maps and map projections and their uses: analysis of the spatial distribution and character of environmental elements, including climate, land forms, vegetation, and soils. Three lecture and two laboratory hours each week.

GGY 140. Introduction to Human Geography (3) Concepts and methods of human geography with emphasis on current problems related to the spatial distribution of population. Three hours each week.

GGY 220. Earth Science Graphics (3) Methods of graphic expression related to natural science in general; use of various media; methods of reproducing graphic works; introduction to aerial photography interpretation and basic map use. One lecture and four laboratory hours each week.

GGY 230. Introduction to Weather and Climate (3) Examination of general climatic characteristics through space and time, especially as influenced by controls upon temperature, wind and moisture distributions, and by planetary, regional and local atmospheric disturbances. Three hours each week.

GGY 240. Population Geography (3) Prerequisite: Geography 140 or consent of instructor. A study of the spatial dimensions of population growth, density and movement and of the shifts in these patterns as they relate to changes in selected socio-economic and cultural phenomena. Three hours each week.

GGY 255. Historical Geography of the Middle East (3) Geographical, archaeological, historical and geological investigation of the physical environment and cultural landscapes that provided the settings for the evolution of the population, economics and cultures of Southwestern Asia. Three hours each week.

GGY 270. Principles of Land Use Planning (3) Prerequisite: Geography 130 and 140 or consent of instructor. Introduction to planning techniques and to planning as a profession. Classification and analysis of spatial variations in land use patterns and development processes as they relate to the physical environment and human activities. Three hours each week.

GGY 282. Geography of North Carolina (3) Prerequisite: Geography 140 or consent of instructor. A survey of the physical and cultural landscapes of North Carolina

with the emphasis on an understanding of the complex geographical variety that exists within a dynamic and growing southern state. Three hours each week.

GY 312. Geography of Transportation (3) Prerequisite: Geography 110 or consent of instructor. Study of the structural elements of transportation systems and the spatial processes associated with their development. Three hours each week.

GY 315. Industrial Geography (3) Prerequisite: Geography 110 or credit in economics or consent of instructor. Factors underlying the distribution, development and character of manufacturing activities and industrial regions. Emphasis is placed upon location theory. Three hours each week.

GY 317. Urban Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban development and problems in the United States. Three hours each week.

GY 320. Elementary Cartography (3) Techniques of drafting, map projection, and map designs; methods of data representations on maps. One lecture and four laboratory hours each week.

GY 322. Aerial Photography and Remote Sensing (3) Prerequisite: Geography 130 or Geology 101. Introduction to the use of aerial photography and other remote sensing techniques to analyze topography, geology, vegetation and culture. Two lecture and three laboratory hours each week.

GY 325. Quantitative Methods in Earth Sciences (3) Prerequisite: Statistics 215. Use and interpretation of statistical techniques in geographic and geologic research. The course emphasizes problem identification, data collection and interpretation through assignments covering specific kinds of statistical methods. Three lecture hours each week.

GY 333. Applied Climatology (4) Prerequisite: Geography 130 or 230 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three lecture and two laboratory hours each week.

GY 335. Introduction to Geomorphology (4) Prerequisite: Geography 130 or Geology 101 or consent of instructor. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

GY 336. Regional Geomorphology of North America (3) Prerequisite: Geography 335 or 130, and Geology 101, or consent of instructor. Analysis of the spatial patterns and interactions of geomorphic processes in North America. Particular emphasis is given to an examination of geomorphic provinces and analysis of regional historical geomorphology. Three lecture hours each week.

GY 350. Political Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs. Three hours each week.

GGY 352. Historical Geography of the United States (3) Prerequisite: History 201 or Geography 140 or consent of instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time. Three hours each week.

GGY 372. Community and Regional Land Use Planning (3) Prerequisite: Geography 270. Application of planning techniques to current urban and regional land use problems. Topics include spatial structure of cities and regions and emphasis is placed upon the visual-spatial qualities of communities and regions. Three hours each week.

GGY 375. Rural Land Use Planning (3) Prerequisite: Geography 270. Concepts of planning applied to the protection of open space in the face of increasing development demands and pressures. Topics include farmland retention, landscape assessment, land trusts, preservation and scenic easements, zoning techniques and land use plans. Three hours each week.

GGY 378. (History 378) Historic Preservation Planning (3) Prerequisite: Geography 270, or 352 or consent of instructor. An applied research course which deals with the procedures employed by federal, state and local agencies in locating, recording, restoring and preserving American architectural resources and material cultural heritage. Subjects examined include survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles. Three hours each week.

GGY 382. Regional Geography of the United States (3) Prerequisite: Geography 140 or History 202 or consent of instructor. A regional analysis of physical characteristics, resource base and human geography of the United States. Three hours each week.

GGY 385. Regional Geography of Europe (3) Prerequisite: Geography 140 or History 102 or consent of instructor. A regional analysis of the physical and cultural features of Europe. Three hours each week.

GGY 429. History and Philosophy of Geography (3) Prerequisite: Senior standing in geography. Development of geographic thought and comparative evaluation of current philosophies concerning the nature of geography. Three hours each week.

GGY 432. Biogeography (3) Prerequisite: Senior standing in geography, geology, or biology or consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic and evolutionary events of the past. Three hours each week.

GGY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GGY 495. Senior Seminar (1-3). Prerequisite: Senior standing in geography. May be repeated one time for credit. One to three hours each week.

GY 496. Senior Thesis (2-2) Prerequisite: Senior standing in geography. A supervised senior thesis on a topic selected by the student, thesis advisor, and thesis committee. A written thesis, completed during a two semester period, and an oral defense are required.

GY 498. Internship (3) Prerequisite: Senior standing in geography, recommendation of advisor and consent of the geography faculty. The student works a minimum of twelve hours per week for an outside agency or individual in a position that enables the student to utilize academic training in a practical field experience. A summary paper and an oral presentation before the geography faculty are required.

GY 499. Honors Work in Geography (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 72.

Requirements for a concentration in Geology for the B.A. degree: Geology 101, 02, 190, 201, 210, 231, 331, 341, Geography 335, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101 or (105, 106)-102. Mathematics 111-12 or 115, and a minimum of 7 hours selected from Biology, Chemistry, Computer Science, Geology, Geography, Mathematics or Physics. A "C" (2.0) or better average in all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department.

Requirements for a concentration in Geology for the B.S. degree: Geology 101, 02, 190, 201, 202, 231, 311, 312, 331, 341, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101-102, Mathematics 161-162, Physics 201-02, and a summer field course in geology offered by another institution. Students wishing to pursue a program emphasizing paleontology may substitute specific courses in biology for the physics requirement with approval of the department. A "C" (2.0) or better average on all courses taken within the department and a "C" (2.0) or better average on all required courses above the 100 level in the department. Students planning to attend graduate school are urged to take Computer Science 111, and French 101-102 or German 101-102.

Geology Course Descriptions

(Department of Earth Sciences)

LY 101. Physical Geology (4) Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Field trips. Three lecture and three laboratory hours each week.

LY 102. Historical Geology (4) Prerequisite: Geology 101. Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and three laboratory hours each week.

LY 120. (Environmental Studies 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with

the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

GLY 131. Dinosaurs (2) Study of the Dinosaurs and other Mesozoic vertebrates as illustrations of the basic principles of vertebrate paleontology. Emphasis is placed on identification, systematics, evolution, ecology and extinction of the Dinosaurs. Two hours each week.

GLY 150. Introduction to Oceanography (3) An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips. Three hours each week.

GLY 190. Methods in Geology (3) Prerequisite: Geology 101 and Geology 102. Introduction to various bibliographic, graphic, field, and laboratory methods essential to geologic studies. Weekly projects and required field trips. Three hours each week.

GLY 201. Mineralogy (4) Prerequisite: Geology 101; corequisite: Chemistry 101, including laboratory. Principles of chemical bonding in natural solids; crystal chemistry; physical conditions of mineral genesis; geologically significant mineral associations; crystallography; mineral identification. Required field trips. Three lecture and three laboratory hours each week. Fall.

GLY 202. Advanced Mineralogy (3) Prerequisite: Geology 201. The technique of mineral identification and analysis. Theory and application of the polarizing microscope and X-ray diffractometer. Introduction to the principles of the electron microprobe, X-ray fluorescence and atomic absorption. One lecture and four laboratory hours each week.

GLY 210. General Petrology (4) Prerequisite: Geology 201 or consent of instructor. A survey of the major igneous, sedimentary, and metamorphic rock groups. Emphasis is on classification, textural features, mode of occurrence, environments of origin and economic importance. Laboratory stresses rock identification and typical rock associations. Required field trips. Three lecture and three laboratory hours each week.

GLY 231. Invertebrate Paleontology (4) Prerequisite: Geology 102 or consent of instructor. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and three laboratory hours each week.

GLY 250. Coastal Sedimentary Environments (4) Prerequisite: Geology 101 or consent of instructor. A study of the sedimentary processes and environments of the world's coastal systems. Emphasis is placed on river deltas, estuaries, bays, salt marshes, barrier islands and associated inlets. Ice bound as well as rocky coastlines are also examined. Three lecture and two laboratory hours each week.

GLY 311. Igneous and Metamorphic Petrology (4) Prerequisite: Geology 202. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimen-

tal data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and three laboratory hours each week.

GLY 312. Sedimentary Petrology (4) Prerequisite: Geology 202. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Field trips. Three lecture and three laboratory hours each week.

GLY 331. Stratigraphy (3) Prerequisite: Geology 231. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Field trips. Two lecture and three laboratory hours each week.

GLY 332. Micropaleontology (4) Prerequisite: Geology 231 or consent of instructor. Paleobiology ang geological history of micro-organisms emphasizing the classification and systematics of major microfossil groups. Introduction to the concepts of paleoecology, paleoceanography and biostratigraphy utilizing microfossils. Three lecture and three laboratory hours each week.

GLY 341. Structural Geology (4) Prerequisite: Geology 201 and Mathematics 112 or 115. Introduction to the mechanics, fabrics, and geometry of rock deformation, including stress-strain relationships, folds and folding, and faulting and fracturing of rocks. Selected regional examples introduce and test concepts and theories of orogenic rock mechanisms and tectonics. Required field trip. Three lecture and three laboratory hours each week.

GLY 391. Appalachian Geology (1) Corequisite: Geology 331 or 341. Field study of the structure, stratigraphy, rocks, and paleontology of the Paleozoic System of the Appalachian geosyncline. Introduction to sample collection, field mapping procedures, and methods of data analysis. Three field days and colloquium. Spring. (Fees)

GLY 392. Coastal Plain Geology (1) Corequisite: Geology 331. Field analysis of depositional patterns and paleontology of Cretaceous and Cenozoic units of the southeastern Atlantic Coastal Plain. Introduction to methods of litho- and biostratigraphic correlation, sampling techniques, and sample analysis. Three field days and colloquium. Fall. (Fees)

GLY 393. Coastal Processes (1) Prerequisite: Geology 101. Field examination of the depositional and erosional processes and materials in the marshes, estuaries and barrier islands of the Carolinas and Georgia. Introduction to the basic techniques used by coastal researchers in field measurements, sample retrieval and data analysis. Three field days and colloquium. Spring. (Fees)

GLY 394. Piedmont Geology (1) Prerequisite: Geology 102. Corequisite: Geology 201 or 341, or consent of instructor. Field examination of the petrology, degree(s) of metamorphism, and structural style(s) of the various belts of rock in the crystalline Appalachians. Observations permit regional tectonic syntheses for the Piedmont. Three field days and colloquium. Fall. (Fees)

GLY 431. Paleoecology (3) Prerequisite: Geology 331 or consent of instructor. Principles of ecological faunal analysis as primarily applied to the marine fossil record. Emphasizes the integration of form and function, taphonomy, community development through time and sedimentology/stratigraphy as a synthetic approach to paleoenvironmental, paleobiological and evolutionary analyses. Applications to biostratigraphy are considered. Required field trips. Three lecture hours each week.

GLY 440. Regional Geology of North America (3) Prerequisite: Geology 331, 341, and consent of instructor. Survey of the rocks, structures, natural resources, and tectonic histories of the different regions of North America such as the Precambrian Shield, Appalachians, and Cordillera. Three lecture hours each week.

GLY 450. Marine Geology (4) Prerequisite: Geology 101, Biology 362, or consent of instructor. Topography, sediments, structure and geologic history of the marine and estuarine environment. Required field trips. Three lecture and three laboratory hours each week.

GLY 471. Sedimentary Geochemistry (3) Prerequisite: Chemistry 102 and one of the following: GLY 210, GLY 312, CHM 377, CHM 475, CHM 476. Application of geochemistry to the formation and diagenesis of sediments and sedimentary rocks. Examination of mineral precipitation, sediment cementation, metasomatism and chemical erosion. Three hours each week.

GLY 480. Advanced Topics in Geology (1-3) Prerequisite: Junior standing in department and consent of instructor. Study of selected topics in geology that are not considered in detail in regular course offerings. Examples of specific topics are plate tectonics, seismology, depositional systems, groundwater hydrology, geochronology, and advanced paleontology. Taught on demand. More than one topic may be taken for credit (maximum 6 hours).

GLY 485. Economic Mineral Deposits (3) Prerequisite: Geology 201, Geology 210 or Geology 311-312, Chemistry 101-102. Classification, description, and origin of economically valuable rock and mineral deposits. Survey of the types of ore deposits that characterize island arcs, spreading centers, and intracontinental areas. Magmatic, hydrothermal, and sedimentary processes of ore formation. Three lecture hours per week. Field trips.

GLY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GLY 495. Senior Seminar (1-3) Prerequisite: Senior standing with a concentration in Geology or consent of instructor. May be repeated one time for credit. One to three hours per week.

GLY 499. Honors Work in Geology (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 72.

ENGINEERING

(See Pre-Professional Programs for Requirements)

Engineering Course Descriptions

(Department of Earth Sciences)

EGN 111. Engineering Graphics (3) Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fasteners, dimensioning, freehand sketching; axonometric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laboratory hours each week.

EGN 211. Land Surveying (3) Prerequisite: Mathematics 111 or consent of instructor. The elements of plane surveying; basic instrument nomenclature, use and adjustment, methods of surveying plots of land using thhe metes and bounds system; and introduction to the public land surveys; methods of basic surveying computation involving horizontal, vertical and angular measurements; legal aspects of surveying (legal term definitions, recording processes, federal, state and local laws and codes); basic methods of subdivision. Two hours of lecture and three hours of laboratory each week.

EGN 212. Route Surveying (3) Prerequisite: Engineering 211 or consent of instructor. The elements of plane route surveying to include the operations involved in horizontally and vertically aligning roadways (highways and railroads) and the computations involved in the various operations; horizontal and vertical curves; procedures peculiar to roads, canals, transmission lines, pipelines, storm and sanitary sewers, urban utility surveys, along with the incidental storm drainage design and layout for certain roadway situations. Two hours of lecture and three hours of laboratory each week.

EGN 221. Geodetic Surveying (3) Prerequisite: Engineering 211. The application of many of the principles of geodesy for the purpose of transitioning from surveys on a plane to surveys on an oblate spheroid (Earth). The use of spherical trigonometry and some of the calculus in geodetic surveys; the N.C. State Plane Coordinate System; some experience in electronic distance measuring; methods of computation and field methods of triangulation, trilateration and traverse; astronomical observations and computations involved to determine latitude, longitude and azimuth (direction) from one point to another. Two hours of lecture and three hours of laboratory each week.

EGN 222. Topographic Surveying and Mapping (3) Prerequisite: Engineering 211. The field and office processes necessary to prepare topographic and hydrographic maps of a specified area. The many methods of data acquisition over land and water areas are examined and practiced during the course to include: radial line surveys, x.y.z. coordinate surveys, aerial surveys and the plane table. The actual preparation of a "live" map from field survey to finished inked map is a primary part of the course. Two hours of lecture and three hours of laboratory each week.

EGN 321. Engineering Statics (3) Prerequisite: Physics 201 and corequisite: Mathematics 212. The study of engineering statics using vector calculus. Basic concepts, forces and equilibrium analysis, distributed forces, centroids, moments of inertia, virtual work, applications to machines, structures, and systems. Three hours each week.

EGN 322. Engineering Dynamics (3) Prerequisite: Engineering 321 and corequisite: Mathematics 213. The study of engineering dynamics using vector calculus. Equations of motion, kinematics, kinetics of mass points and systems of mass points, kinetics and kinematics of rigid bodies. Three hours each week.

ENGLISH

Dr. Byington, *Chairman*. Dr. Clifford, Dr. Collier, Dr. Corbett, Mr. Crumbley, Dr. Dodson, Dr. Ellis, Mr. Evans, Mr. Fort, Mrs. Foushee, Dr. Gould, Ms. Huntley, Mr. McColl, Ms. McDonald, Dr. MacLennan, Dr. Parish, Mrs. Pearsall, Dr. Rosselot, Dr. Schweninger, Dr. D. Seiple, Dr. J. Seiple, Mr. Sher, Dr. Stokes, Dr. Sullivan, Dr. Veit, Dr. Walker, Mrs. Wasson, Dr. Waxman, Dr. Wentworth.

The department of English offers a basic preparation in literature, language, and composition, and then special concentrations in Literature and Language, Professional and Creative Writing, and Teacher Preparation.

Core requirements for a concentration in English for the B.A. degree: English 211-212, 223-224, 306, 320 or 323 and an additional writing course. Students with an emphasis in Literature and Language are required to take an additional 15 hours in literature and language courses, including one senior seminar; English 332 or 333, and three elective hours, (no more than 6 of the 21 hours may be at the 200 level). Students with an emphasis in Professional and Creative Writing are required to take an additional 12 hours in writing courses (no more than 6 hours at the 200 level), 6 hours in literature courses, including one senior seminar, and 3 hours in a language or additional writing course.

Requirements for a concentration in English for the B.A. degree with Teacher Certification: The Core requirements plus English 225 **or** 226, 304, 321, 380 or 381, 382, 495 (Seminar), and 3 elective hours (300 level or above). In the core, the additional writing course must be English 200 and the language course must be English 320. Students will be urged to choose Communication 105 **or** 116 as part of the Basic Studies requirements.

Collaterals: 18 hours in another discipline or disciplines selected by student and advisor to provide optimum reinforcement for the student's academic objectives.

A "C" or better grade must be achieved in each English course taken to satisfy requirements of the major.

English Course Descriptions

ENG 100. Foundations of Composition (0) Intensive writing practice and instruction for students needing preparation in the basics of composition. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

ENG 101. Composition (3) Prerequisite: Evidence of competence on the English Placement Test or a grade of "C" in English 100. An introduction to college-level composition. Extensive practice in the techniques of invention, development, organization, editing, and revision, with emphasis on narrative, descriptive, and expository forms appropriate to everyday personal, business, and academic writing. Three hours each week.

ENG 102. Composition (3) Prerequisite: English 101. College-level composition. Continued practice in the composing process, with emphasis on argumentation and research. Frequent projects in gathering, analyzing, and documenting information from outside sources. Three hours each week.

NG 110. Introduction to Literature (3) Study of three literary genres—poetry, drama, and short fiction—in terms of basic components and structures. Three hours each week.

NG 200. Foundations of Creative Writing (3) Prerequisite: English 102 or consent of instructor. Instruction in creative writing as a preparation for teaching on the primary or secondary levels. Includes writing exercises in three genres: poetry, fiction, and drama. Intended primarily for prospective teachers. Three hours each week.

NG 201. Intermediate College Writing (3) Prerequisite: English 102. Instruction in composing strategies to strengthen organizational, syntactical, and editing skills. Written projects relate to the academic interests of each student. Three hours each week.

NG 202. Introduction to Journalism (3) Prerequisite: English 102. Introduction to news writing and newspaper organization. Includes writing newsstories, editorials, features, interviews, and profiles. Three hours each week.

NG 203. Writing About Literature (3) Prerequisite or corequisite: English 102. Practice in ways to write about literature in forms ranging from personal journals to in-class responses to critical essays. Includes readings and instruction in literature. Three hours each week.

NG 207. Creative Writing (Fiction) (3) Prerequisite: English 102 or consent of instructor. Instruction in writing fiction, including critical evaluation by instructor and class of students' orginal works. Students also critique and relate to their own work the fiction of relevant professional authors. Three hours each week.

NG 208. Creative Writing (Poetry) (3) Prerequisite: English 102 or consent of instructor. Instruction in writing poetry, including critical evaluation by instructor and class of students' original works. Students also critique and relate to their own work the poetry of relevant professional poets. Three hours each week.

NG 210. Mythology (3) Prerequisite: English 102. The major mythological systems of Western society—Greek, Roman, and Norse. Mythology of other parts of the world and related material are also considered. Three hours each week.

NG 211-212. Great British Writers I & II (3, 3) Prerequisite: English 102, 211: Writings before 1800; 212: Writings since 1800. Three hours each week.

NG 219. General Fiction (3) Prerequisite: English 102. A thematic approach to fiction for students who enjoy extensive reading of current novels.

NG 220. Introduction to the English Language (3) Prerequisite: English 102. A non-technical introduction to the structure, history, and contemporary use of the English language. Provides a thorough background in English grammar. Three hours each week.

NG 223-224. American Literature I & II (3, 3) Prerequisite or corequisite: English 102. 223: The literature of Colonial and Early America from 1607 to 1820 and

of the Romantic era (1820-1855). 224: The literature of American Realism (1855-1900) and of the Twentieth Century (1900-1960). Three hours each week.

ENG 225-226. World Literature I & II (3) Prerequisite or corequisite: English 102. Representative works of world literature (excluding British and American authors) emphasizing, but not limited to, the western literary tradition. English 225: Works from ancient times to about 1500; English 226: 1500 to the twentieth century. Three hours each week.

ENG 230. Women in Literature (3) Prerequisite or corerequisite: English 102. Twentieth-century literature by and about women. Focus on changes in images and roles of women. Includes fiction, poetry, and essays. Three hours each week.

ENG 232. Black American Writers (3) Prerequisite or corequisite: English 102. Study of representative literature written by Black American writers from slavery to the present, including writers such as Wheatly, Douglass, Hughes, Wright, Ellison and Alice Walker. Three hours each week.

ENG 233. The Bible as Literature (3) Prerequisite or corequisite: English 102. Study of types of Biblical literature, including narratives from the Old and New Testament, sermons, parables, and poetry. Attention is given to the Bible as literature in itself and as a source of symbols and allusions from Western culture. Three hours each week.

ENG 235. Literature and Film (3) Prerequisite or corequisite: English 102. Study of selected literary works that have been transformed into films. Consideration is given to each work in its original literary form as well as to the changes it has undergone in cinematic adaptation. Works treated may vary from semester to semester. Three hours each week.

ENG 240. The Supernatural in Literature (3) Prerequisite or corequisite: English 102. Types of supernatural phenomena in literature, including psychic experiences, the occult, ghosts, werewolves, and vampires. Emphasis on British and American fiction of the nineteenth and twentieth centuries, from Mary Shelley to Stephen King.

ENG 241. Detective Fiction (3) Prerequisite or corequisite: English 102. Major writers of detective fiction from Poe to the present. Development of the mystery form and the evolution of the detective as hero in British and American literature. Three hours each week.

ENG 242. Science Fiction (3) Prerequisite or corequisite: English 102. Study of special conventions that distinguish science fiction from other types of literature (such as fantasy). Considers the contribution of science fiction to the understanding of such current concerns as overpopulation, biological change, automation, and the threat of nuclear war. Works by such authors as Wells, Asimov, Heinlein, Clarke, Bester and LeGuin. Three hours each week.

ENG 243. Fantasy Literature (3) Prerequisite or corequisite: English 102. Study of nonrational phenomena in literature and of the relationship of fantasy to reality. Considers phenomena such as magic and otherworldly creatures in settings that distinguish fantasy from other types of literature, such as science fiction. Three hours each week.

NG 244. Literature of the Sea (3) Prerequisite or corequisite: English 102. Study of nautical literature, focusing on varying perceptions of the sea; major themes in nautical literature; uses of the sea as setting, symbol and metaphor. Three hours each week.

NG 250. Introduction to Folklore (3) Prerequisite or corequisite: English 102. A definition and survey of the most common forms of folklore, including folk speech, narratives, music, art, customs and beliefs, with an emphasis upon the relevance of these materials to the study of literature, history, education, art, the social sciences and other disciplines. Three hours each week.

NG 290. Themes in Literature (3) Prerequisite or corequisite: English 102. An interdisciplinary study of a significant theme, such as war and peace, justice, love, youth and age, focusing primarily on literary works but also drawing on sources from other fields, including art, music and history. May be repeated once under a different subtitle. Three hours each week.

NG 300. Introduction to Technical Writing (3) Prerequisite: English 102. Types of writing encountered in professions: resumes, memos, correspondence, proposals, progress reports, technical reports, and oral presentations of technical reports; emphasis on style, form, and organization; adaptable to the student's major field of study. Three hours each week.

NG 301. Technical Report Writing (3) Prerequisite: English 300 or consent of instructor. Theory and practice of technical writing; emphasis on mid-sized and longer reports, including proposals and feasibility studies, journal articles, professional papers and research studies, and oral presentation of technical reports; adaptable to the student's major field of study. Three hours each week.

NG 302. Journalism Workshop (3) Prerequisite: English 202 or consent of instructor. Study of advanced forms of newswriting, such as *Wall Street Journal* style, news magazine format, and "New Journalism." Techniques applied to writing and editing the weekly campus newspaper, *The Seahawk*. Three hours each week.

NG 304. Writing for Teachers (3) Prerequisite: English 102. Instruction in writing for teachers of all school subjects (K-12). Forms of exposition and persuasion appropriate to teachers; consideration given to learning and composition theory, the composing process, theories of rhetoric, evalaution, writing development. Three hours each week.

NG 306. Essay Writing (3) Prerequisite: English 102. Instruction in all major essay modes: narration, description, exposition, critical analysis, and persuasion. Emphasis on mastering prewriting, writing and revision strategies; attention to developing individual style. Appropriate for students in all majors. Three hours each week.

NG 307. Advanced Creative Writing: Fiction (3) Prerequisite: English 207 or consent of instructor. Instruction in advanced techniques of writing fiction. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 308. Advanced Creative Writing: Poetry (3) Prerequisite: English 208 or consent of instructor. Instruction in advanced techniques of writing poetry. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 310. Theory and Practice of Editing (3) Prerequisite: English 102. An advanced writing course, focusing on revising, editing and copy editing. Techniques and strategies for getting prose ready for publication will be explored. Extensive practice in editing professional and student samples. Three hours each week.

ENG 311. Professional Magazine Writing (3) Prerequisite: English 102. Writing of non-fiction prose intended for publication in magazines, newspapers and journals. Three hours each week.

ENG 315. Special Topics in Writing (3) Prerequisite: English 102. A focused study on a particular aspect in composition/rhetoric. Topics may vary from semester to semester but may include classical or medieval rhetoric; the study of style; the writing of grants; the rhetoric of visualization, art, music, or photography; or the analysis of propaganda and advertisements; theories of writing. Three hours each week.

ENG 320. Introduction to Linguistics (3) Prerequisite: English 102. Important topics in the study of language, including phonological, syntatic, and semantic systems; language change; language acquisition by children; theories of language origin; and animal "language." Three hours each week.

ENG 321. Structure of the English Language (3) Prerequisite: English 102. Study of the grammatical structure of the English language and the process by which we create and comprehend English sentences. Emphasis on recent syntactic models. Three hours each week.

ENG 322. Semantics (3) Prerequisite: English 102. The study of language as it affects our thinking and behavior; language and prejudice; the language of advertising, propaganda, science, and poetry; slanting, euphemisms, jargon, connotations, abstraction. Three hours each week.

ENG 323. History of the English Language (3) Prerequisite: English 102. The development of the English language from Old English to the present; changes in sounds, vocabulary, syntax, meaning, and spelling; formation of American dialects. Three hours each week.

ENG 332. Shakespeare I (3) Prerequisite: English 102. A study of eight to ten plays and selected sonnets (written before 1600). Included are tragedies, comedies, and histories. Three hours each week.

ENG 333. Shakespeare II (3) Prerequisite: English 102. A study of eight to ten plays written after 1600. Included are tragedies, comedies, and histories.

ENG 335. Restoration and Eighteen Century Literature (3) Prerequisite: English 102. Major writers and types of literature between 1600 and 1800. Includes works by Dryden, Swift, and Pope; as well as examples of the periodical essay, early novel, and drama. Three hours each week.

NG 336. British Romanticism (3) Prerequisite: English 102. Selected poetry and prose of the Romantic period, 1783-1837. Emphasis on developments in poetry, in the role of the artist, and Romantic critical theory. Includes such writers as Blake, Byron, Wordsworth, Coleridge, Keats, Shelley, Austen, and Scott. Three hours each week.

NG 337. Victorian Literature (3) Prerequisite: English 102. English literature from 1832 to 1901. Cultural upheavals as reflected in poetry and prose by such authors as Tennyson, Browning, Arnold, Pater and the Pre-Raphaelites, Dickens, Eliot, and Thackeray. Three hours each week.

NG 338. British Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes works by British authors such as Conrad, Lawrence, Joyce, Woolf, Yeats, Shaw, and Auden. Three hours each week.

NG 350. American Romanticism (3) Prerequisite: English 102. Major writers in the American Renaissance, from 1820 to the Civil War, including Whitman, Emerson, Thoreau, Poe, Hawthorne, and Melville. Three hours each week.

NG 351. American Realism (3) Prerequisite: English 102. Major writers in the period of emerging industrialism and urbanization after the Civil War, including Dickinson, Twain, James, Crane, and Dreiser. Three hours each week.

NG 352. American Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes works by American authors such as Eliot, Pound, Stevens, O'Neill, Hemingway, Fitzgerald, Porter and Faulkner. Three hours each week.

NG 353. Southern American Literature (3) Prerequisite: English 102. A study of nineteenth and twentieth century southern literature, ranging from southwestern humor sketches written before the Civil War to recent literature by such authors as Welty, O'Connor, Faulkner, Ellison, Percy, and Williams. Three hours each week.

NG 354. North Carolina Writers (3) Prerequisite: English 102. Short stories, novels, and poetry by North Carolina writers. Several works reflect upon the life and time of the state. Includes such writers as Charles Chesnutt, O. Henry, Thomas Wolfe, Randall Jarrell, and Gail Godwin. Three hours each week.

NG 355. Ethnic Literature of the United States (3) Prerequisite: English 102. Literature of various American ethnic groups, with emphasis on Afro-American, Jewish-American, Native American, Hispanic-American, and Asian American literature. Three hours each week.

NG 361. Studies in the Short Story (3) Prerequisite: English 102. Types of the short story, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions. Three hours each week.

NG 362. Studies in the Novel (3) Prerequisite: English 102. Types of the novel, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 364. Studies in Poetry (3) Prerequisite: English 102. Major types of poetry, with emphasis upon their form, style, and interpretation. Poems from a variety of periods, authors, and traditions. Three hours each week.

ENG 365. Studies in Drama (3) Prerequisite: English 102. A variety of plays representing tragedy, comedy, and modern forms. Works from a variety of periods, authors and traditions with some attention to dramatic criticisms. Three hours each week.

ENG 371. European Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes continental authors such as Kafka, Hesse, Camus, Rilke, Brecht, Akhmatova, and Pasternak. Three hours each week.

ENG 372. Contemporary Literature (3) Prerequisite: English 102. Literature since 1950. Includes such movements and themes as confessional and beat poetry, theatre of the absurd, alienation, pop culture, and experimentation. Three hours each week.

ENG 373. The Female Tradition in Literature (3) Prerequisite: English 102. Study of literary works by nineteenth century women. Examines evolving women's literary criticism, and distinctly female uses of language in literature. Three hours each week.

ENG 380. Literature for Children (3) Prerequisite: English 102. Exploration of childrens' books in several genres. Intended for present and future parents and teachers of grades 4-9. Three hours each week.

ENG 381. Literature for Young Adults (3) Prerequisite: English 102. An exploration of various genres appropriate for high school students. Intended for present and future parents and teachers of adolescents. Three hours each week.

ENG 382. Varieties of Literary Response (3) Prerequisite: English 102. A range of written and oral responses to poetry, fiction, and drama. Student participation in such approaches as role-playing, collaborative problem-solving, dramatization, visualization, and parody. Three hours each week.

ENG 430. The Age of Chaucer (3) Prerequisite: English 102. A survey of works written in medieval England. Included are *The Canterbury Tales*, selections from Chaucer's other works, and representative works in such genres as chronicle, biography, epic, romance, dream vision, and drama. Three hours each week.

ENG 431. The Age of Elizabeth (3) Prerequisite: English 102. English literature in the sixteenth and early seventeenth centuries. Works studied include poetry by Spenser and Shakespeare; plays by Marlowe and Jonson; and prose by More and Sidney. Three hours each week.

ENG 432. The Age of Milton (3) Prerequisite: English 102. Emphasis on the works of Milton. Also includes works by Donne, Herbert, and Bacon. Three hours each week.

ENG 462. Studies in the Novella (3) Prerequisite: English 102. Types of the novella or short novel, with emphasis upon its distinctive features and development as

a genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 463. Studies in Non-fiction (3) Prerequisite: English 102. Types of non-fiction prose, including biography, autobiography, memoirs, journals, and various forms of the essay. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 490. Special Topics in Literature (3) Prerequisite: English 102. The study of a selected theme, movement, period, influence, or genre. Content varies from semester to semester. May be repeated once under a different subtitle. Three hours each week.

ENG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ENG 495. Seminar (1-3) Prerequisite: Junior or senior standing or consent of the chairman. Intensive study of a topic in literature, language, or writing. Emphasis upon individualized work which may include reports, a longer research project, and appropriate bibliography assignments. Classes limited to fifteen. Required of English majors in the junior and senior year. May be repeated once under a different subtitle.

ENG 499. Honors Work in English (2-3) Prerequisite: Eligibility for honors program. Independent study for honors student.

For 292 and 492, see explanation on p. 72.

ENVIRONMENTAL STUDIES

(Interdepartmental)

Dr. Merritt, *Advisor.* Participating disciplines: Biology, Chemistry, Earth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, and Sociology.

Requirements for a concentration in Environmental Studies for the B.A. degree:

Core: (1) Environmental Studies 195, 495; Statistics 205 or 215, and Computer Science 111 or 121. (2) One course from each of four disciplines, selected from: Chemistry 235, 277; Physics 105; Biology 205, 206; Geology 101, 120; Geography 130. (3) One course from each of three disciplines, selected from: Political Science 304, 308; Anthropology 309; Psychology 370 (EVS 370); Economics 325 (EVS 325), 328.

Specialization: A disciplinary concentration requiring a minimum of 20 hours chosen from the approved list of courses in one of the following: Biology, Chemistry, Earth Sciences, Economics, Managerial Science, Marine Science, Mathematical Sciences, Physics, Political Science, Psychology, Sociology.

Approved courses for each discipline are listed below. Courses taken to fulfill core requirements may not count toward the specialization. A "C" or better average on courses taken in the area of specialization is required.

BIOLOGY: BIO 316, 335 with lab, 345 or 347 or 355, 356, 365, 366, 375, 425, 440, 465, 466, 470, 475, 480, 491.

CHEMISTRY: CHM 211-212 with labs, 235 with lab, 277, 315-316, 321 with lab or 325 with lab, 435 with lab, 445, 465, 475, 476, 485, 491 (environmental research project).

EARTH SCIENCES: (Geology emphasis) GLY 101, 102, 120, 201, 210, 250, 331, 341, 391. (Geography emphasis): GGY 110, 130, 140, 270, 320, 322, 325, 335, 372, 375. (Marine Science emphasis): GLY 150, 250, 391, 450; GGY 230, 322, 333, 335, 432.

ECONOMICS: ECN 320 or 321, 322, 326, 324 or 327, 426, 427, 428, 495; FIN 331.

MANAGERIAL SCIENCE: BUS 310, 311, 313, 314, 350, 356, 358; MKT 340.

MARINE SCIENCE: GLY 150, 450; GGY 333, 432; BIO 208, 345, 362, 365 or 481, 366, 458, 462, 468, 472; CHM 475.

MATHEMATICAL SCIENCES: MAT 231, 325, 335, 361, 423, 425, 435, 461, 471; STT 262, 362, 410; CSC 420.

PHYSICS: PHY 201-202 (corequisite MAT 151-152 or 161- 162), 225, 260, 321, 335, 455, 491 (environmental research project); PHY 170 is recommended as an elective.

POLITICAL SCIENCE: PLS 111, 210, 211, 304, 307, 308, 309, 405, 406.

PSYCHOLOGY: PSY 336, 355, 365, 370, 410, 412, 456, 457, 465.

SOCIOLOGY: ANT 205, 206, 207, 302, 304, 305, 309, 322; SOC 230, 305, 315, 316, 385.

Environmental Studies Course Descriptions

(Interdepartmental)

EVS 120. (Geology 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

EVS 195. Introduction to Environmental Studies (3) Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems. Three hours each week.

EVS 316. (Sociology 316) Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on social evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and related configuration of human communities. Three hours each week.

EVS 325. (Economics 325) Environmental Economics (3) Prerequisite: Economics 125 or 221 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and techno-

logical externalities as determinants of market failure; institutional alternatives involving economic incentives. Three hours each week.

EVS 370. (Psychology 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior effects of noxious factors in the environment, the psychology of enviornmental design, and the formation and change of attitudes about the environment. Three hours each week.

EVS 490. Senior Project (1-6) Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Enviornmental Studies field, and the preparation of a written report on the findings.

EVS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the Environmental Studies advisor.

EVS 495. Seminar in Environmental Studies (3) Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format.

EVS 499. Honors Work in Environmental Studies (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292, and 492, see explanation on p. 72.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HEALTH, PHYSICAL EDUCATION AND RECREATION

Dr. Charles Lewis, *Chairman*, Mr. D. Allen, Dr. E. Allen, Mr. Blackmore, Mr. Brooks, Mr. Chapman, Dr. Combs, Mr. Ellington, Mr. Gibson, Dr. Gladwell, Mr. Guthrie, Dr. Hatcher, Dr. Hollifield, Mr. Honeycutt, Mr. Lane, Mrs. J. Lewis, Miss McDaniel, Dr. Maylath, Dr. D. Miller, Ms. Parker, Mr. Scalf, Ms. Sherman

Requirements for a concentration in Physical Education for the B.A. degree: Physical Education 101, 200 series* (six hours from numbers 1-8 listed below and two additional hours), 216, 217, 235, 301, 320, 340, 349, 355, 360, 386, 415, 420, 435, Health

105, 201, 305. Required collaterals: Education and Psychology courses required for teacher certification. A "C" or better grade in all required Physical Education, Education and Psychology courses. Students are certified in Physical Education. Students may qualify for add-on certification in health by completing the following additional courses: Health 205, 207, 234, 304.
*Students must complete 200-aquatics *or* satisfy the aquatics competency test.

Health Course Descriptions

(Department of Health, Physical Education and Recreation)

HEA 105. Individual Well-Being (3) Topical areas and issues in health explored within the physical, emotional, social, intellectual, and spiritual dimensions of personal wellness. Three hours each week.

HEA 201. First Aid, Safety, and Cardio-Pulmonary Resuscitation (2) A certification course for American Red Cross First Aid and Cardio-Pulmonary Resuscitation. The class will meet for two lecture hours and one lab hour each week.

HEA 205. Reproduction and Sexuality (3) Prerequisite: Health 105. Emphasizes the anatomy and physiology of reproduction, conception, prenatal growth and parturition; relevant issues pertaining to human sexuality, childbearing and sexual diseases. Three hours each week.

HEA 207. Nutrition (3) The main focus of this course will be the application of the principles of nutrition as related to health, various levels of wellness, and practices of health care. Emphasis on basics of sound nutrition, requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads and weight control. Three hours each week.

HEA 234. Principles of Health Education (3) An introduction to the principles of health education planning, organization, and evaluation with emphasis on the school health program. The role of the health education will be examined with respect to health behaviors, attitudes, and problems. Three hours each week.

HEA 304. Health and Safety Education, Grades K-9 (3) The scope, development and procedures of health education as it relates to the student, health services and the healthful school environment. Emphasis upon the human sexuality and the teacher's responsibility for first aid and safety education in the school environment. Three hours each week.

HEA 305. Curriculum Methods in Health (3) The scope, development and procedures of health education as it relates to the student, health services, and the healthful school environment. Emphasis upon instructional methodology appropriate for health teaching. Includes practicum in teaching. Three hours each week.

Physical Education Course Descriptions

(Department of Health, Physical Education and Recreation)

PED 101. Foundations of Physical Activity (2) Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

PED 102. Physical Education Activity (1) Prerequisite: Students planning to enroll in PED 102 sections of Aerobic Dance, Lifeguard Training, Physical Conditioning, Running Fitness, and Weight Training should consult individual instructors about prerequiste requirements. Students may accumulate up to 7 hours credit in Physical Education 102, but are limited to one hour per semester. Three hours each week.

PED 103. Physical Education Activity – Program of Outdoor Pursuits (3) Prerequisite: Physical Education 101 or equivalent. Study of and participation in the skills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area, only once.)

PED 200. Sports Skills (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities and to provide practical experience in the development of instructional materials. Each skills course meets three hours each week for one-half semester.

1. Basketball (1)
2. Dance (1)
3. Gymnastics (1)
4. Soccer (1)
5. Softball (1)
6. Tennis (1)
7. Track and Field (1)
8. Volleyball (1)
9. Archery (1)
10. Aquatics (1)
11. Badminton (1)
12. Field Hockey (1)
13. Football (1)
14. Golf (1)
15. Outdoor Adventure Sports (1)
16. Racquetball/Handball (1)
17. Wrestling (1)
18. Aerobics (1)

PED 216. (Biology 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three lab hours each week.

PED 217. (Biology 217) Human Anatomy and Physiology II (3) The study of the human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

PED 235. Principles of Physical Education (3) Introduction to the objectives, history, philosophies, trends, and professionalism of physical education. Three hours each week.

PED 236. Athletic Officiating (3) Rules, officiating techniques, and problems arising in officiating with emphasis on football, basketball, baseball, volleyball, and tennis.

PED 301. Prevention, Treatment, and Rehabilitation of Athletic Injuries (3) Prerequisite: Physical Education 216. A basic course in the management of athletic injuries. Three hours each week.

PED 320. Methods of Teaching Motor Activity (3) Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicium in teaching. Three hours each week.

PED 335. Readings in Physical Education (3) A comprehensive review of literature in physical education and related areas. Three hours each week.

PED 336. An Approach to Coaching (3) The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature. Three hours each week.

PED 340. Kinesiology (3) Prerequisite: Physical Education 216. Study of neuromuscular and mechanical principles of human motion, with applications being made to movement problems most often found in physical education and sports skills. Three hours each week.

PED 349. (Biology 349) Applied Physiology of Exercise (4) Prerequisite: Physical Education 216 or Biology 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

PED 355. Tests and Measurements in Physical Education (3) Use and interpretation of elementary statistical techniques for evaluation and application of tests in physical education; review of current tests in motor ability, physical fitness, classification, sport skills, and knowledge. Three hours each week.

PED 360. Motor Learning (3) An introduction to the principles of motor learning, this course is concerned with the analysis and application of physiological and psychological principles related to the learning and performance of motor skills. Two lecture and one laboratory hours each week.

PED 379. Legal Liabilities in Athletics and Physical Education (3) Prerequisite: Junior or Senior level. An introduction to the legal liabilities existing in Physical Education and Athletics. Terminology, procedure, operations of the law and case studies will be studied enabling students to positively confront liability situations should they arise. Emphasis on state laws as well as national laws. Three hours each week.

PED 386. Physical Education in the Primary Grades (K-3) (3) A study of the theory, techniques and methods of developing and implementing a total program of physical education for children in grades K-3. Emphasis on the "movement approach" to learning fundamental motor skills, equipment construction, rhythms and dance, stunts and tumbling, classroom games, and other activities basic to the K-3 program. Three hours each week.

PED 387. Physical Education in the Intermediate Grades 4-6 (3) Methods and materials for developing and conducting a yearly program of physical education for children in grades 4-6. Emphasis on refinement of sports skills through lead-up games, relays and other games of low organization, including activities in gymnastics, dance and fitness development. Three hours each week.

ED 415. Adapted Physical Education (3) Prerequisite: Physical Education 216 and junior or senior standing. Problems relating to the physiological and kinesiological needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he or she is capable. Two lecture and two laboratory hours each week.

ED 416. Laboratory Techniques and Research Methods in Exercise Physiology (3) Prerequisite: Physical Education 349 and consent of instructor. A study of laboratory techniques and research methods used to evaluate physiological response to exercise and training. Primarily a laboratory experience. Three hours each week.

ED 420. Teaching Physical Education (2) Prerequisite: Physical Education 320. (PED 420 must be taken before Education 408 and 409). Individualized, supervised experience in teaching. Experience complemented with weekly seminar on contemporary problems.

ED 421-422-423-424-425-426. Methods of Coaching (2) Emphasis on strategy, fundamentals, techniques, training and related duties. Two hours each week.

421	Baseball	424	Track and Field
422	Basketball	425	Soccer
423	Football	426	Volleyball

ED 435. Organization and Administration of Health and Physical Education (3) Prerequisite: Junior or senior standing. Analysis of problems involved in planning, organizing, and directing health and physical education programs. Three hours each week.

ED 436. Intramurals (3) Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems. Three hours each week.

ED 440. Selected Topics in Physical Education (3) Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education. Three hours each week.

ED 455. Advanced Tests and Measurements in Physical Education (3) Prerequisite: Physical Education 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics. Three hours each week.

ED 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ED 499. Honors Work in Physical Education (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Requirements for a concentration in Parks and Recreation Management for the .A. degree:

Core Courses: Recreation 265, 266, 268, 298, 360, 365, 368, 450, 465, 469, 498.
Commercial Recreation Option: Recreation 350, 351, 366, 495. Required collaterals 3 hours): Accounting 201, 203, Business 355, Marketing 340.

Outdoor Recreation Option: Recreation 271, 366, 470. Required collaterals (12 hours): Biology 206 and two of the following: 356, 366, 456, 475.

Therapeutic Recreation Option: Recreation 369, 370, 467, 468; Physical Education 216, 349. Required collaterals (9 hours): Education 260; Psy 347; Sociology 215. A grade of "C" or better on all required Recreation and Physical Education courses.

Recreation Course Descriptions

(Department of Health, Physical Education and Recreation)

REC 265. Introduction to Recreation and Parks (3) The scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services. This course is a prerequisite for all other courses in recreation. Three hours each week.

REC 266. Program Planning for Recreation and Parks (3) Prerequisite: Recreation 265. An introduction to programming for recreation and parks, including the major areas of recreation, planning principles, objectives and evaluation. Program factors, such as scheduling, personnel, facilities, equipment, etc., will be considered. Three hours each week.

REC 268. Social Recreation Leadership (3) Prerequisite: Recreation 265. Leadership and planning principles as they apply to serving the recreation participant. Study of a variety of activities suitable for social gatherings; complete program of social recreation activities for various groups; practical application of leadership skills. Three hours each week.

REC 271. Camp Leadership and Management (3) Prerequisite: Recreation 265 or consent of instructor. Study of the segment of park recreation programs involved with current camp practices, philosophy, leadership and management. Three hours each week.

REC 298. Practicum in Recreation (3) Prerequisite: Recreation 265 and either Recreation 266 or 268. Supervised experience in recreation and/or park setting. Relates theory to practical applications in the field. Placements chosen from community, commercial, outdoor or therapeutic recreation settings. Three hours each week.

REC 350. Recreation and Commercial Enterprise (3) Identification, development, operation and impact of profit-oriented recreation enterprises. Investigation of feasibility studies, sources of technical assistance, financing, facility planning and development, marketing and managerial requirements. Three hours each week.

REC 351. Travel and Tourism (3) An introduction to the commercial area of the leisure field which is concerned with travel and tourism. Three hours each week.

REC 360. Outdoor Recreation (3) Prerequisite: Recreation 265. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation in these areas. Three hours each week.

REC 365. Administration of Recreation and Parks (3) Prerequisite: Recreation 266 and 298. Administrative practices related to recreation and parks services, including budget preparation; legal aspects of recreation and park services; fees and charges; public relations; recruiting; selecting and training personnel; personnel practices, etc. Three hours each week.

REC 366. Water-Related Recreation and Park Facilities and Programs (3) Prerequisite: Recreation 265. Water-based resources for recreation activities and programs. Emphasis on swimming pools and coastal resources management. Attention also given to reserviors/lakes, rivers/ streams, commercial amusements and decorative uses of water.

REC 367. The Arts and Recreation (3) Prerequisite: Recreation 265. Administrative problems involved in organizing quality cultural arts in recreation and parks departments and other leisure services agencies. Areas to be examined include financing, personnel, facilities, and equipment. Funding possibilities and relationships between the National Endowment for the Arts, State Arts Councils, Local Arts Councils, and Recreation and Parks Departments will also be studied. Three hours each week.

REC 368. Introduction to Therapeutic Recreation and Special Populations (3) Prerequisite: Recreation 265 or consent of instructor. The recreation and parks program for individuals and groups who are ill, handicapped, aged, or in other special groups conducted by tax-supported, voluntary, or privatee agencies found in the community, hospitals, penal institutions, or other special residences. Three hours each week.

REC 369. Therapeutic Recreation for the Aging (3) Prerequisite: Recreation 368. To acquaint the student with the special wants and needs of the elderly; to provide insight into the physical, mental, social, and emotional problems of the aged. To make the student aware of the important role recreation plays in the lives of the aged. Three hours each week.

REC 370. Adaptive Activities and Facilities for Therapeutic Recreation (3) Prerequisite: Recreation 368. To introduce the student to procedures and methods of adapting recreational facilities, programs and activities to meet the needs of the handicapped. Three hours each week.

REC 450. Conflict Resolution in Recreational Leadership (3) Prerequisite: Recreation 265. An experimental approach to the study of conflict resolution in recreation leadership and management. Three hours each week.

REC 465. Planning of Recreation and Park Areas and Facilities (3) Prerequisite: Recreation 365. Basic principles in planning, design and development of park and recreation areas and facilities. Safety, legal liability, contracting, maintenance and vandalism control are also studied. Three hours each week.

REC 467. Leisure Education in Therapeutic Recreation (3) Prerequisite: Recreation 368. An overview of the leisure education process as an aspect of therapeutic recreation service delivery. The course encompasses a review of leisure education and strategies for the development, implementation, and evaluation of leisure education programs for persons with disabilities. Three hours each week.

REC 468. Therapeutic Recreation: Program Planning and Implementation (3) Prerequisite: Recreation 368. Advanced level course in programming and program implementation for individuals who are disabled or in other special population groups. Emphasis on sources of funding, community awareness and successful programming techniques. Three hours each week.

REC 469. Research Methods and Practices in Recreation and Parks (3) Prerequisite: Recreation 365. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will be undertaken.

REC 470. Outdoor Recreation Management (3) Prerequisite: Recreation 360. Advanced level course in giving in-depth exposure to management techniques necessary for the administration of major outdoor recreation areas including national park areas, national forest preserves, state parks, county park systems, municipal park systems and commercial areas such as marinas and camp sites. Emphasis on budgeting, personnel management, facility planning and design. Three hours each week.

REC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

REC 495. Seminar in Recreation (1-3) Prerequisite: Recreation 365 or consent of instructor. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

REC 498. Parks and Recreation Internship (6) Prerequisite: Recreation 365. A progression of professional field experiences relating theory to practical experience. Work experiences involving program planning and administrative procedures in county, municipal, institutional and voluntary settings.

REC 499. Honors Work in Recreation (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 72.

HISTORY

Dr. McLaurin, *Chairman*. Mr. W. Allen, Dr. Berkeley, Dr. Fink, Dr. Haley, Dr. Kinzer, Dr. McGuire, Dr. Schneider, Dr. Toplin, Dr. Usilton, Dr. Watson.

Requirements for a concentration in History for the B.A. degree: History 101, 102, 103, 201, 202; an additional 27 hours in history at the 300-400 level, and an overall "C" average in courses taken within the department. Students may take three hours at the 200 level in addition to History 201 and 202, and are required to take at least three hours at the 400 level, and may count no more than six hours in History 491 and 495 toward the major. Students are required to take at least one upper level course in European, United States, and Third World history (Africa, Asia, Latin American and Middle East). History 490, Senior Seminar, is required of all students. Students are also expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: English, Modern Languages, Philosophy and Re-

gion, Anthropology, Economics, Geography, Political Science and Sociology. History ajors working toward certification in Social Studies for secondary school teaching ust complete a minimum of 21 hours in Anthropology, Economics, Geography, Po- ical Science and Sociology with courses in at least 3 areas.

History Course Descriptions

ST 101, 102. Western Civilization (3,3) 101: History of Civilization to 1650. 102: History of Civilization from 1650 to the present. Three hours each week.

ST 103. Introduction to Global History (3) An introduction to the global effects of colonialism, industrialism and nationalism with special emphasis on Asia, Africa, Latin America and the Middle East since 1500.

ST 201, 202. American History (3,3) 201: United States to 1865. 202: United States from 1865 to present. Three hours each week.

ST 237. Women in Modern America (3) A broad survey of the female experience in the twentieth century. This course focuses on three areas which affect the lives of modern women: work, politics and sexuality. Utilizing a comparative model, it explores similarities and differences between the first and second woman's movement, the sexual revolutions of the 1920s and 1960s, and the changing nature of women's work in modern and "post-modern" society. Three hours each week.

ST 261. Afro-American History (3) A concise survey of the major themes and events in the history of black Americans from the colonial period to the present. Three hours each week.

ST 271. The Sea in History (3) Prerequisite: History 101-102 or consent of instructor. The history of mankind's interaction with the sea, focusing on its importance for resources, trade and transport, exploration, and warfare. Three hours each week.

ST 273. Evolution of Warfare (3) Prerequisite: History 101-102 or consent of instructor. The development of war from ancient times to the present, emphasizing its effect upon society. Three hours each week.

ST 275. History of Science Since 1500 (3) An introduction to the history of the major developments in western science from the scientific revolution to the present, including an examination of both the origins of scientific discoveries and their impact on society. Three hours each week.

ST 300. The American Military Experience (3) Prerequisite: History 201-202 or consent of instructor. A survey of the American military experience from the colonial period to the present with emphasis on the wars of America, the evolution and development of military policy, strategy, tactics, and technology; and the relationship of military affairs to the political, social, and economic institutions of America. Three hours each week.

ST 305. The Ancient Near East (3) Prerequisite: History 101-102 or consent of instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations. Three hours each week.

HST 306. Ancient Greece and Rome (3) Prerequisite: History 101-102 or consent of instructor. A study of the civilizations of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana. Three hours each week.

HST 311, 312. History of England (3,3) Prerequisite: History 101-102 or consent of instructor. 311: From the Roman invasion to the Wars of the Roses. 312: From King Henry VIII to the twilight of the British Empire. Three hours each week.

HST 315. History of Ireland (3) Prerequisite: History 101-102 or consent of instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the 19th and 20th centuries. Three hours each week.

HST 316. British Empire and Commonwealth (3) Prerequisite: History 101-102 or consent of instructor. A consideration of the British Empire, evolution of the Commonwealth and the emergence of additional post-World War II areas of independence. Three hours each week.

HST 321. History of Modern France (3) Prerequisite: History 101-102 or consent of instructor. History of France from the French Revolution and Napoleon through the political, economic and social developments of the nineteenth century to the World Wars and colonial wars of the twentieth century. Three hours each week.

HST 323. History of Modern Germany (3) Prerequisite: History 101-102 or consent of instructor. Study of German nationalism. German unification, the Bismarckian empire, Hitler's Third Reich, and the two Germanies since World War II. Three hours each week.

HST 325, 326. History of Russia (3,3) Prerequisite: History 101-102 or consent of instructor. 325: To the Bolshevik Revolution. 326: From the Bolshevik Revolution to the present. Three hours each week.

HST 327. Modern Israel (3) Prerequisite: History 102 or consent of instructor. The origins of the modern state of Israel: the history of Zionism, the Holocaust, and Great Power Diplomacy; evolution of Israel since 1948; political, social, economic, cultural, intellectual, scientific, and technological development; the Arab-Jewish conflict; and Israeli democracy and world politics. Three hours each week.

HST 328. European Social History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. The lives of ordinary people in different regions of Europe, under feudal, monarchial, capitalist, and Marxist societies; the impact of climate, geography, language, religion, education, and work on individuals, families, social groups, and nations. Three hours each week.

HST 329. European Intellectual History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. A survey of the main currents of European thought and their relation to European society in general from the Scientific Revolution to the present. Three hours each week.

HST 330. Womanhood in America: Family, Work and Community Life (3) Prerequisite: History 201-202 or consent of instructor. An examination of American

women and women's roles from the colonial period to the present. Three hours each week.

IST 331. American Urban History (3) Prerequisite: History 201-202 or consent of instructor. The transition in America from a pre-industrial rural society to an industrial urban society. This course explores the effect urbanization had upon America's social, political and economic institutions and concludes with an examination of how the "revolution" in transportation and technology shaped the design of American cities. Three hours each week.

IST 333. American Social History (3) Prerequisite: History 201-202 or consent of instructor. The impact of social change on American life from colonial times to the present. An examination of changing concepts of ethnicity and racial identification, the growth of religious movements, the effect of industrialization on family life, the impact of urbanization on crime and violence, and the influence of movies and television on mass behavior. Three hours each week.

IST 334. Slavery and Sectionalism (3) Prerequisite: History 201 and 202 or consent of the instructor. A study of slavery as an intellectual and political problem in the United States with special attention to abolitionism, sectional differences in the 1820-1861 period, and the impact of slavery on the war effort of both the Union and the Confederacy.

IST 335. Diplomatic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. American diplomatic activities and foreign relations since 1775. Three hours each week.

IST 336. Constitutional History of the United States (3) Prerequisite: History 201-202 or consent of instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life. Three hours each week.

IST 337. History of American Thought (3) Prerequisite: History 201-202 or consent of instructor. American thought from the colonial period to the present with emphasis on those ideas having lasting influence on American institutions. Three hours each week.

IST 339. Economic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy. Three hours each week.

IST 341. North Carolina, 1524 to 1835 (3) Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the colonial and federal periods to the Constitution of 1835. Three hours each week.

IST 342. North Carolina, 1835 to the Present (3) Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries. Three hours each week.

IST 346. The Old South (3) Prerequisite: History 201-202 or consent of instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South. Three hours each week.

HST 347. The New South (3) Prerequisite: History 201-202 or consent of instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism. Three hours each week.

HST 351. History of Canada (3) Prerequisite: History 101-102 or History 201-202 or consent of instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations. Three hours each week.

HST 360. History of China (3) Prerequisite: Any two of the following: History 101, 102 or 103; or consent of the instructor. Survey of the history of China: the evolution of characteristic Chinese institutions and modes of thought from antiquity to the present within a wider framework of political, economic and cultural change; Chinese responses to western imperialism in modern times; revolutionary transformation in modern and contemporary China.

HST 361. History of Japan (3) Prerequisite: Any two of the following: History 101, 102 or 103; or consent of instructor. Survey of Japanese history from the earliest recorded times to the present emphasizing Japan's development as a cultural daughter of China: Japanization of Chinese culture and unique aspects of Japanese civilization; the emergence of a modern economy and state economic bases of Japanese militarism-imperialism; developmental characteristics of Japanese capitalism.

HST 365. History of Modern East Asia (3) Prerequisite: History 101-102 or consent of instructor. A survey of modern east Asian history from the mid-nineteenth century to the present with emphasis on the Asian response to western imperialism, institutional continuity and change, international relations, and movements toward independence and modernization. The course focuses on China, Japan and Korea with secondary attention to Southeast Asia in the post-World War II era. Three hours each week.

HST 368. Latin American History (3) Prerequisite: An America or Western Civilization survey course or consent of instructor. The development of South America, Central America, and the Caribbean from the time of the pre-Conquest civilizations to the present. Three hours each week.

HST 371. History of Africa (3) Prerequisite: History 101-102 or consent of instructor. Historical survey of African cultures with emphasis on the establishment of colonial empires, Africa under colonial rule, and modern African independence movements. Three hours each week.

HST 378. (Geography 378) Historic Preservation Planning (3) An applied research course which deals with the procedures employed by federal, state, and local agencies in locating, recording, restoring, and preserving American architectural heritage and material cultural resources. Subjects examined include: survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles.

HST 380. 20th Century International Relations (3) Prerequisite: One of the following: History 102, 103, 202, or consent of instructor. Historical analysis of the main techniques, goals, and practitioners of international relations from World War I to the present, stressing shifts in the balance of power, ideological com-

petition, alliance systems, international organizations, peace movements, and new methods of conflict resolution.

IST 403. Medieval Civilization (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period. Three hours each week.

IST 405. Political History of the Middle Ages (3) Prerequisite: History 101-102 or consent of instructor. A study of the political development of medieval Europe from the decline of the Roman Empire in the West to the emergence of the modern period. Three hours each week.

IST 407. Europe in the Age of the Renaissance (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. Political, economic and social changes during the Renaissance, with special attention to the artistic and intellectual achievements of the age. Three hours each week.

IST 409. Europe in the Age of the Reformation (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. Causes and development of the Protestant Revolution and the Catholic Reformation with examination of the impact of these movements on the political, economic and social institutions of early modern Europe. Three hours each week.

IST 411. Europe: From Monarchy to Revolution (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. Modern Europe from the rise of absolute kings in the seventeenth century to the defeat of the Emperor Napoleon. Emphasis is placed on the wars to gain control of Europe and colonial empire, the development of capitalist finance and a global economy, and the decline of aristocracy, climaxing in the French Revolution and the age of Napoleon. Three hours each week.

IST 413. Europe: The Age of Industry and Empire (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The origins and development of the industrial revolution in Europe; its effect on politics, population, urbanization and social class consciousness, the establishment of modern colonial empires in the nineteenth century and their place in the world economic order. Three hours each week.

IST 415. Europe and the Struggle for World Mastery (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The rivalry of Europe's great powers leading to World Wars I and II: the causes, events, and results of those global conflicts; the ensuing political revolutions in the inter-war period; anticipations of decline of the European empires; the spread of democracy and self-determination to certain areas; and European cultural and scientific development in the first half of the twentieth century. Three hours each week.

HST 417. Europe Since 1945 (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The revival of Europe after the Nazi period and its division by the Cold War; political, social, economic developments on both sides of the "Iron Curtain," decolonialization of Europe's empires; move-

ments for political and economic integration; continuing revolutionary currents; Europe's place in contemporary world politics. Three hours each week.

HST 420. Great Britain 1815-1914: The Victorian Age (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. An examination of British society from the conclusion of the Napoleonic Wars to the outbreak of WWI. Major themes considered will include the impact of industrialization and urbanization; the gradual democratization of British politics; the cultural aspects of "Victorianism;" the foundations of British international power; the expansion of the British Empire.

HST 431. The Chinese Revolution (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The Chinese Revolution from the May 4th Movement (1919) to the present. Special emphasis on the social and economic origins of the revolution, the history of the Communist Movement, the evolution of Mao Zedong's thought, and revolutionary developments in the People's Republic.

HST 441. Colonial History of the U.S. (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Formation and growth of American colonies to the conclusion of the French and Indian War (1763). Three hours each week.

HST 443. The American Revolution and the Formation of the United States, 1763-1800 (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Organization of the British Empire, events preceding the Revolution, the war for independence, Confederation era, drafting and ratification of the federal Constitution, politics of the new nation. Three hours each week.

HST 445. The Early United States Republic (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Era from inauguration of Thomas Jefferson through Jacksonian democracy to the advent of the American Civil War. Three hours each week.

HST 447. The Civil War and Reconstruction (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. The American Civil War and Reconstruction of the South through 1877. Three hours each week.

HST 449. Robber Barons and Reformers, the U.S., 1877-1917 (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. The rise of American industry and the Populist-Progressive response to Urbanization and Industrialization. Three hours each week.

HST 451. Twentieth Century America (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. A study of the United States from 1917 to 1950 with emphasis upon World War I, the Roaring Twenties, Depression and New Deal, World War II, and the origins of the Cold War. Three hours each week.

HST 452. America Since 1950 (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Developments in American politics, cultural life, civil rights and foreign policy from the time of the Truman Admin-

istration to the present, including the Cold War, Korea, the Vietnam War, Watergate, the energy crisis, the nuclear arms race, feminism, and the "Me Decade." Three hours each week.

ST 470. Introduction to Applied History (3) Prerequisite: History 201, 202 and completion of course work at the 300 level in History. A research seminar designed to acquaint students with the various sectors of applied history (government/public policy, archives and information management, cultural resource management, media and research organizations), and with the research methodologies peculiar to the field. Field trips, guest speakers and a sponsored research project provide practical experience for participants.

ST 480. Topics in Afro-American History (3) Prerequisite: History 201, 202, and completion of any university course work at the 300 level. An intensive historical study of selected themes and events in the history of Afro-Americans from the origins of the Atlantic slave trade to the present. Examples of specific topics are: Slavery in the Americas, Blacks and the American Military Tradition, Black Folklore, The Harlem Renaissance and Biographies of Great Afro-American Leaders. Three hours each week.

ST 482. Community Studies (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Provides an introduction to the methodological and practical application of community studies. Topics include: oral history, folklore, ethnography, museum and archival collection and management and historic preservation. Students will select a research project in cooperation with one of the local museums, historical societies, the public library or another governmental agency. Three hours each week.

ST 490. Senior Seminar (3) Prerequisite: Senior standing. An exploration of historiography and the methodologies of historical research, with an emphasis on the writing of history.

ST 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Students should have a 2.0 grade point average.

ST 495. Seminar (3) Prerequisite: History 101, 102, or 201, 202 as appropriate or consent of instructor. Intensive study of historical topics not regularly covered in other courses.

ST 498. Internship in Applied History (3) Prerequisite: History 101, 102, 201, 202, 377 and at least one other history course of relevant content. Academic training and practical field experience through work with a private historical agency in the three county area in and around Wilmington. Faculty supervision and evaluation of all study and on-site activity. Open to students of junior or senior standing who have been approved by the Advisory Committee for the Intern Program.

ST 499. Honors Work in History (2-3) Prerequisite: Senior standing. Consent of instructor or department chairman. Individual study for honors students.

MARINE BIOLOGY

(See Biological Sciences)

MATHEMATICAL SCIENCES

Dr. Smith, *Chairman*. Dr. Alves, Dr. Berman, Dr. Bhaskaran, Dr. J. Brown, Mr. T Brown, Dr. Dankel, Dr. Etheridge, Dr. Frierson, Dr. Greim, Dr. Gurganus, Dr. Herbst, Dr. Jambor, Dr. Kambule, Dr. Karlof, Dr. Lugo, Mr. Lupton, Dr. McLaurin, Dr. Mueller-Roemer, Dr. Nelson, Dr. Norris, Dr. Robinson, Dr. Sadek, Dr. Saksena, Dr. Spackman, Dr. Whipkey, Dr. Worsey.

Requirements for a concentration in Computer Science for the B.S. degree: (See also the admission statement in the Degree Requirements section of the Catalogue.)

Core requirements: Computer Science 121, 122, 231, 241, 242, 332, 334, 360; Mathematics 161, 162, 335; Statistics 262, 362. In addition to the core requirements there are three options below, one of which a student must complete in order to fulfill the degree requirements. In general, enough latitude is allowed in each to accommodate a "double major" with mathematics or business if the student wishes.

Scientific: Computer Science 325, 425, 460; Mathematics 261, 361; Physics 201, 202; and two courses selected from Computer Science 420, Mathematics 435, 436, 461, 462, 471, and Mathematics/Statistics 465.

Systems: Computer Science 325 or Mathematics 361; Computer Science 342, 410, 442, 460; Mathematics 261; Mathematics 336 or 375; Physics 201, 202.

Business: Computer Science 455; six additional hours at the 300 or 400 level in Computer Science, Mathematics or Statistics approved by the advisor; Accounting 201, 203; Economics 221, 222; Business 314, 355; Finance 335; Marketing 340.

A grade of C or better must be earned on each required Computer Science course; a quality point average of (C) 2.0 or better must be earned on all other courses required for the concentration.

Note: Students interested in the degree program in Computer Science are encouraged to begin their mathematics study with Calculus I (Mathematics 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with Mathematics 115 or Mathematics 111-112, as appropriate. Students who place into Mathematics 162 are advised to take the Advanced Placement Test to receive college credit for Mathematics 161.

Computer Science Course Descriptions

(Department of Mathematical Sciences)

CSC 105. Survey of Computer Applications (2) An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library. Two hours each week.

CSC 107. Programming Laboratory—SNOBOL (1) Prerequisite: Computer Science 105 or consent of instructor. Elementary programming techniques for character-

string processing and text editing. Emphasis will be placed on the pattern matching facilities of SNOBOL. Two hours each week.

SC 111. Introduction to Computer Programming Using FORTRAN (3) Prerequisite or corequisite: Mathematics 111 or 115. Algorithms and computer systems, data representation, survey of computer applications, elementary programming techniques in FORTRAN, debugging and verification of programs. Two lecture and two laboratory hours each week.

SC 121. Introduction to Computer Science I (3) Prerequisite: Mathematics 111 or Mathematics 115, or equivalent. Problem solving methods and algorithms in a modern high-level programming language. Introduces one or more programming environments. Emphasis on programming style and the design, coding, and testing of complete programs. A grade of "C" or better is required for taking any course for which Computer Science 121 is prerequisite. Three lecture and one laboratory hour each week.

SC 122. Introduction to Computer Science II (3) Prerequisite: Computer Science 121. Continuation of Computer Science 121 with emphasis on character and string processing, elementary data structures, computer graphics, recursion, and use of software tools. A grade of "C" or better is required for taking any course for which Computer Science 122 is prerequisite. Three lecture and one laboratory hour each week.

SC 125. Computer Language—FORTRAN (2) Prerequisite: Computer Science 121. Elementary and intermediate programming techniques in FORTRAN. Computer solution to numeric problems. No credit after completion of Computer Science 111. Two hours each week.

SC 126. Computer Language—PL/1 (2) Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in PL/1. Computer solution to numeric and non-numeric problems. Two hours each week.

SC 127. Computer Language—COBOL (2) Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in COBOL. Computer solution to business oriented problems. Two hours each week.

SC 128. Interactive Personal Computing (2) Prerequisite: Computer Science 111 or 121. Elementary programming techniques using interactive services. The use of personal computers. Two hours each week.

SC 207. Language Processing (3) Prerequisite: Computer Science 107. The role of computers as tools in linguistic studies; literary applications of computing: verbal indexes, concordances, authorship controversies; computational linguistics; algorithms for manipulating character strings using the SNOBOL programming language. Three hours each week.

SC 231. (Mathematics 231) Discrete Structures (3) Corequisite: Computer Science 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours each week.

CSC 241. Introduction to Computer Systems & Assembly Languages (3) Prerequisite: Computer Science 121. Introduction to computer structure. Registers, machine instructions and formats; number and character representation; execution control and addressing techniques. Basic input-output programming; files; procedures, segmentation, and linkage; recursion and re-entrancy; floating-point and string operations. Symbolic and machine-level debugging. Three hours each week.

CSC 242. Digital Logic and Computer Organization (3) Prerequisite: Computer Science 231 and 241. Study of computer system organization. Combinational and sequential circuit analysis and synthesis; medium and large-scale integrated circuits. Register-transfer language and microprogramming; instruction fetch and execution; flow of control. Input-output, controllers, interrupts, communications and codes. Introduction to computer networks. Three hours each week.

CSC 305. Computer Graphics (3) Prerequisite: Computer Science 121 and Mathematics 261. Display memory generation of points, vectors, etc. Interactive versus passive graphics. Analog storage of images on microfilm, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies. Three hours each week.

CSC 325. (Mathematics 325) Numerical Algorithms (3) Prerequisite: Computer Science 111 or 121, Mathematics 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

CSC 332. Data Structures (3) Prerequisite: Computer Science 122 and 231. Study of basic data structures and their applications. Lists and trees; graph algorithms; internal and external sort and search techniques; hashing; analysis and design of efficient algorithms; file processing techniques. Three hours each week.

CSC 334. Programming Languages (3) Prerequisite: Computer Science 332. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures. Three hours each week.

CSC 342. Operating Systems (3) Prerequisites: Computer Science 242 and 334. Study of supervisory programs. System services and file systems; CPU scheduling; memory management; virtual memory; disk scheduling. Deadlock characterization, prevention, and avoidance; concurrent processes; semaphores; critical sections; snychronization. Distributed systems and communication protocols. Three hours each week.

CSC 350. Computer Components and Circuits (3) Prerequisite: Mathematics 162 and Physics 202. Introduction to the basic elements of electricity, electronics

and semi-conductor device theory as applied to computer components. Voltage, current, Ohm's law; capacitance, inductance, reactance, impedance, and analysis of AC circuits; transmission lines; transistors, flip-flops, and small-scale integrated circuits; medium- and large-scale integrated circuits and the microprocessor. Three hours each week.

SC 360. Formal Languages and Computability I (3) Prerequisite: Computer Science 332. An introduction to theoretical computer science. Topics include regular expressions and finite state concepts; basic automata theory; formal grammars and languages; computability; Turing machines; elementary recursive function theory. Three hours each week.

SC 365. Switching Theory (3) Prerequisite: Computer Science 231. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes. Three hours each week.

SC 410. Compiler Construction (3) Prerequisite: Computer Science 360. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping. Three hours each week.

SC 420. Simulation Techniques (3) Prerequisite: Computer Science 231 and Statistics 362. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation. Three hours each week.

SC 425. (Mathematics 425) Numerical Analysis (3) Mathematics 325, 335 and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods, least squares, minimax, and spine approximations; polynomial interpolation; numerical integration and differentiation; solution of non-linear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming. Three hours each week.

SC 442. Advanced Computer Organization (3) Prerequisite: Computer Science 342. Advanced topics in computer organization and architecture. Readings from the literature contrasting alternative organization schemes as they affect system development. Seminar format. Three hours each week.

SC 450. Software Engineering (3) Prerequisite: Computer Science 332. Study of the design and production of large and small software systems. Topics include systems engineering, software life-cycle and characterization; use of software tools. Three hours each week.

CSC 455. Data Base Management Systems (3) Prerequisite: Computer Science 332. Introduction to data base concepts, data independence, logical and physical views of data base systems. Data models: hierarchial, network, and relational. Data description languages, query functions, relational algebra. Three hours each week.

CSC 460. Formal Languages and Computability II (3) Prerequisite: Computer Science 360. Advanced topics in theoretical computer science. Theory of computation; languages and syntatics analysis; computational complexity and NP-completeness. Three hours each week.

CSC 475. Topics in Computer Science (3) Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses. Three hours each week.

CSC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

CSC 495. Seminar in Computer Science (1) Prerequisite: Junior or senior standing and consent of instructor.

CSC 499. Honors Work in Computer Science (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 72.

Requirements for a concentration in Mathematics:

Core requirements: Mathematics 161-162, 261, 275, 335, 336, 375, and either 366 or 411; Computer Science 121; Statistics 262-362; Physics 201-202; and at least nine hours at the 300 or 400 level approved by the advisor in an area related to mathematics. In addition to the core requirements there are three options listed below, one of which a student must complete to fulfill the degree requirements.

I. **B.A. degree with teacher certification in Mathematics:** Mathematics 345, 346. The Education and Psychology courses required for teacher certification satisfy the core requirements of at least nine hours at the 300 or 400 level in an area related to mathematics.

II. **B.A. degree in Mathematics:** Nine additional hours of mathematics courses at the 300 or 400 level approved by the advisor.

III. **B.S. degree in Mathematics:** Mathematics 361, one of Mathematics 367, 411 (if not used for the core requirement), 412 or 415; a mathematical modeling course, and six additional hours of mathematics or statistics courses at the 300 or 400 level approved by the advisor. The modeling requirement may be fulfilled by taking any of: Mathematics 436, 462, 471, or Mathematics/Statistics 465. (Note: Some of these courses require additional prerequisites.)

A "C" (2.0) or better average is required for mathematics courses at the 300-400 level.

Note 1: Collateral courses required in the three programs in Mathematics must be chosen from departmentally approved courses which, together with the student's Mathematics courses, comprise a coherent program. Normally a

proposed program of study should be submitted to the department for approval prior to the beginning of the student's junior year.

Note 2: Students interested in a degree program in Mathematics are encouraged to begin their mathematics study with Calculus I (Mathematics 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with Mathematics 115 or Mathematics 111-112, as appropriate. Students who place into Mathematics 162 are advised to take the Advanced Placement Test to receive college credit for Mathematics 161.

Mathematics Course Descriptions

(Department of Mathematical Sciences)

In general, Mathematics is sequential in nature. Therefore, successful mastery of each course in sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are Mathematics 111-112, Mathematics 111-151, Mathematics 111-112-151-152, Mathematics MAT 115-151-152, Mathematics 111-112-161-162-261, Mathematics 115-161- 162-261.

MAT 100. Foundations of Algebra (0) Designed primarily for students not prepared for Mathematics 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

MAT 101-102. College Mathematics for The General Student (3-3) A survey of mathematical ways of thinking designed for the general student. Not intended as preparation for further mathematics courses. Cannot be substituted for MAT 111, 112, or 115. Emphasis on concepts and applications rather than on manipulative skills. Introduces logic, number systems, algebra, geometry, probability, statistics, computers, calculus and the history of mathematics. No credit granted after the completion, with a grade of C or better, of a mathematics course numbered 141 or higher. Three hours each week.

MAT 111. Precalculus I (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. A preparatory course for further mathematics courses. Equations and inequalities; polynomial, exponential and logarithmic functions; graphs; systems of equations and inequalities. No credit granted after the completion, with a grade of C or better, of Mathematics 115 or a mathematics course numbered 151 or higher. Three hours each week.

MAT 112. Precalculus II (3) Prerequisite: Mathematics 111 or equivalent or satisfactory performance on the UNCW mathematics placement test. Topics from trigonometry and algebra. Includes trigonometric functions, identities and equations; zeros of polynomials; mathematical induction; and sequences. No credit granted after the completion, wtih a grade of C or better, of Mathematics 115 or a mathematics course numbered 152 or higher. Three hours each week.

MAT 115. Elementary Mathematical Analysis (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. (This is usually equivalent

to an SAT Score above 500 in math, and at least a B average in Algebra I and II, Geometry, Advanced Algebra and Trigonometry.) A one-semester treatment of the topics listed under Mathematics 111 and Mathematics 112. No credit granted after the completion, with a grade of C or better of Mathematics 111, Mathematics 112, or a mathematics course numbered 151 or higher. Three hours each week.

MAT 141-142. Basic Concepts of Mathematics (3-3) (Designed for students majoring in elementary education.) The real number system and related operations, units of measurement, graphs and data analysis, geometry, logic and sets, an introduction to calculators and computers. Three hours each week.

MAT 151-152. Basic Calculus with Applications (3-3) Prerequisite: Mathematics 111 or 115 for 151; Mathematics 112 or 115 and 151 for 152. Differentiation and integration of algebraic and certain transcendental functions, partial differentiation, sequences and series. Greater emphasis is placed on techniques and applications than on theory and derivations. This sequence is not intended for students who need mathematics beyond calculus. Three hours each week.

MAT 161-162. Calculus with Analytic Geometry (4-4) Prerequisite: Mathematics 112 or 115 or equivalent preparation in algebra and trigonometry. Treatment of calculus of a single variable intended for students in the mathematical and natural sciences. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications; equations of curves including the conic sections; transcendental functions; infinite sequences and series. Three hours lecture and two hours laboratory each week.

MAT 231. (Computer Science 231) Discrete Structures (3) Corequisite: Computer Science 121. Introducttion to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours each week.

MAT 261. Multivariate Calculus (4) Prerequisite: Mathematics 162. Calculus of functions of several variables. Polar coordinates and parametric equations, solid analytic geometry, partial derivatives, multiple integrals. Three hours lecture and two hours laboratory each week.

MAT 275. Axiomatic Systems (3) Prerequisite: Mathematics 161. An introductory treatment of propositional and predicate logic and methods of proof. Elementary set theory, relations, functions and topics from axiomatic systems. Precision in the use of mathematics as a language and rigor in proofs are emphasized. Students present and discuss appropriate material to gain experience in communicating mathematics. Three hours each week.

MAT 325. (Computer Science 325) Numerical Algorithms (3) Prerequisite: Computer Science 111 or 121, Mathematics 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

MAT 335. Linear Algebra and Matrices (3) Prerequisite: Mathematics 162. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications. Three hours each week.

MAT 336. Modern Algebra (3) Prerequisite: Mathematics 275, 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings. Three hours each week.

MAT 345. Modern College Geometry (3) Prerequisite: Mathematics 275 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries. Three hours each week.

MAT 346. Historical Development of Mathematics (3) Corequisite: Mathematics 275 or consent of instructor. Development of mathematics from earliest systems to present century. Personalities involved with the contributions of each. A problem-study approach to give the student some training in research. Three hours each week.

MAT 361. Differential Equations (3) Prerequisite: Mathematics 261. Theory, methods of solution, and applications of ordinary differential equations with emphasis on first order equations and linear equations. Additional topics from power series solutions, Laplace transforms, linear systems, and numerical methods. Three hours each week.

MAT 366. Advanced Calculus I (3) Prerequisite: Mathematics 261. A thorough study of differential and integral calculus of vector-valued functions of a vector variable. Jacobians, inverse and implicit function theorems, change of variables in multiple integrals; theorems of Green, Gauss, and Stokes; applications. Three hours each week.

MAT 367. Advanced Calculus II (3) Prerequisite: Mathematics 366. Further topics in analysis and their applications. Infinite series, power series, uniform convergence; Fourier series and orthogonal functions; Fourier and Laplace transforms; elementary applications to differential equations and boundary value problems. Introduction to complex variables and residue theory. Three hours each week.

MAT 375. Combinatorics (3) Prerequisite: Statistics 262 and either Mathematics 275 or Computer Science/Mathematics 231. Techniques for counting configurations of objects. Recurrence relations; principle of inclusion-exclusion; graphs, trees, and circuits. Additional topics chosen from Polya's Theorem, generating functions, and network flows. Three hours each week.

MAT 411-412. Real Analysis (3-3) Prerequisite: Mathematics 261 and 275. Advanced study of convergence, continuity, differentiation, and integration in Euclidean space. The real number system, basic topology of Euclidean spaces; sequences and series; continuity, differentiation of vector-valued functions, uniform continuity; theory of integration; implicit and inverse function theorems, Stokes' Theorem. Three hours each week.

MAT 415. Introduction to Complex Variables (3) Prerequisite: Mathematics 367 or 411. A first study of functions of a complex variable. Algebra of complex numbers,

elementary functions with their mapping properties; analytic functions; power series; integration, Cauchy's Theorem, Laurent series and residue calculus; elementary conformal mappings and boundary value problems. Three hours each week.

MAT 421. Number Theory I (3) Prerequisite: Mathematics 336. Use of alebraic techniques to study arithmetic properties of the integers and their generalizations. Primes, divisibility and unique factorization in integral domains; congruences, residues and quadratic reciprocity; diophantine equations and additional topics in algebraic number theory. Three hours each week.

MAT 425. (Computer Science 425) Numerical Analysis (3) Prerequisite: Mathematics 325, 335 and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods; least squares, minimax, and spline approximation; polynomial interpolation; numerical integration; and differentiation; solution of nonlinear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming. Three hours each week.

MAT 435. Linear Programming (3) Prerequisite: Computer Science 111 or 121 and Mathematics 335. Methods and applications of optimizing a linear function subject to linear constraints. Theory of the simplex method and duality; parametric linear programs; sensitivity analysis; modeling and computer implementation. Three hours each week.

MAT 436. Discrete Optimization (3) Prerequisite: Mathematics 435. Theory and applications of discrete optimization algorithms. Transportation problems and network flow problems; integer programming; computer implementation. Three hours each week.

MAT 451. Topology I (3) Prerequisite: Mathematics 275 and 336. A study of the basic concepts of general topology. Metric spaces, continuity, completeness, compactness, connectedness, separation axioms, product and quotient spaces; additional topics in point-set topology. Three hours each week.

MAT 457. Differential Geometry (3) Prerequisite: Mathematics 366 or 411. Theory of curves and surfaces in Euclidean space. Frenet formulas, curvature and torsion, arc length; first and second fundamental forms, Gaussian curvature, equations of Gauss and Codazzi, differential forms, Cartan's equations; global theorems. Three hours each week.

MAT 461. Partial Differential Equations (3) Prerequisite: Mathematics 361 and 367. Theory and applications of linear partial differential equations. Elliptic, parabolic and hyperbolic equations; separation of variables; Fourier series; Green's functions; Sturm-Liouville problems. Three hours each week.

MAT 462. Continuous Mathematical Models (3) Prerequisite: Mathematics 461, or consent of instructor. Emphasis on the interplay between representative mathematical concepts and selected scientific models. Mathematical topics may include Fourier analysis, calculus of variations, operator theory, perturbation theory, tensor analysis, stability theory, integral equations, and potential theory. Areas of application may include classical, fluid, continuous, celestial, and quantum mechanics, wave propagation, and diffusion. Three hours each week.

IAT 463. Ordinary Differential Equations (3) Prerequisite: Mathematics 335 and 361. Advanced study of ordinary differential equations. Existence and uniqueness; systems of linear equations, fundamental matrices, matrix exponential; series solutions, regular singular points; plane autonomous systems, stability and perturbation theory; Sturm-Liouville theory and expansion in eigenfunctions. Three hours each week.

IAT 465. (Statistics 465) Applied Probability (3) Prerequisite: Mathematics 261 and Statistics 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Emphasis on conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queuing theory, Gaussian process, Brownian motion, and elementary stochastic differential equations. Three hours each week.

IAT 471. Projects in Mathematical Modeling (3) Prerequisite: One of Computer Science 420, Mathematics 435, 461, or Mathematics/Statistics 465. Techniques of problem recognition and formulation, and mathematical solution and interpretation of results. Each student will construct a mathematical model under the supervision of the Applied Mathematics Committee and report on the investigation in written and oral form. Seminar format.

IAT 475. Topics in Mathematics (3) Prerequisite: Junior or senior standing and permission of instructor. Topics of current interest in mathematics not covered in existing courses. Three hours each week.

IAT 481. Introduction to Mathematical Logic (3) Prerequisite: Mathematics 275 and 336. The formal study of truth and provability. Propositional calculus; predicate calculus. Gobel's completeness theorem, applications to formal number theory and incompleteness. Additional topics chosen from areas such as undecidability or non-standard analysis. Three hours each week.

IAT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, a "B" or better average on all mathematics courses taken.

IAT 495. Seminar in Mathematics (1) Discussion of selected topics and problems. One hour each week.

AT 499. Honors Work in Mathematics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 72.

Statistics Course Descriptions

(Department of Mathematical Sciences)

TT 205. Introduction to Statistics with Applications in the Social Sciences (3) Prerequisite: Mathematics 101, 111, or 115. (Designed for students majoring in the social sciences.) Graphical and numerical methods for univariate data; bivariate data organization and measures of association; contingency table analysis; sampling distributions; estimation and hypothesis testing; introduction to linear regression and correlation. Three hours each week.

STT 205-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 210. Introduction to Statistics with Applications in the Health Sciences (3) Prerequisite: Mathematics 111. Collection, tabulation and graphical representation of data. Measures of location and variation, measures of association and chi-squared distribution, correlation and regression, binomial, Poisson and normal distributions, estimation and tests of hypotheses. Health care statistics, elementary computer skills in analysis of data and interpretation of computer printout. Three hours each week.

STT 215. Introduction to Statistics with Applications in the Natural Sciences (3) Prerequisite: Mathematics 111 or 115. (Designed for students majoring in the natural sciences.) Graphical and numerical descriptive methods; random variables and probability distributions; estimation and hypothesis testing (large and small samples); linear regression and correlation; one-way analysis of variance; contingency tables and goodness of fit. Three hours each week.

STT 215-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 250. Introduction to Sampling Techniques (3) Prerequisite: Any introductory statistics course such as Statistics 205, 210, 215, Business 217, or Psychology 225. An introduction to sampling techniques intended for students in the social, behavioral, natural or health sciences. Simple random sampling, stratified random sampling, cluster sampling, and ratio and regression estimation. Three hours each week.

STT 262. Discrete Probability and Random Variables (2) Prerequisite: Mathematics 151 or 161. An introduction to random variables and probability distributions in the discrete case. Topics include descriptive statistics; elementary combinatorics; discrete sample spaces and probability; mathematical expection; Tchebyshev's Theorem; conditional probability and independence; Bayes' Theorem; joint, conditional and marginal distributions; common discrete probability models. Introduction to continuous random variables. Two hours each week.

STT 362. Continuous Probability and Statistics (2) Prerequisite: Statistics 262 and Mathematics 152 or 162. Continuous random variables and their distributions. Topics include functions of random variables; estimation and tests of hypotheses; regression and correlation; least square curve fitting. Two hours each week.

STT 410. (Marine Biology 510) Applied Statistical Methods (3) Prerequisite: Statistics 205 or 215, or the equivalent. After a review of elementary statistics, the following major areas are studied: non-parametric methods; analysis of variance and experimental design and regression analysis. Three hours each week.

STT 430. Introduction to Non-Parametric Statistics (3) Prerequisite: Statistics 362. Theory and methods of non-parametric statistics in the one- and two- sample

problems and their comparisons with standard parametric procedures. Non-parametric tests for comparing more than two samples; tests of randomness and independence. Three hours each week.

STT 440. Linear Models and Regression Analysis (3) Prerequisite: Mathematics 261 and 335 and Statistics 362. Theoretical introduction to the general linear model and its application to simple linear regression and multiple regression. Estimation and hypothesis testing of model coefficients; residual analysis; analysis of covariance. Three hours each week.

STT 465. (Mathematics 465) Applied Probability (3) Prerequisite: Mathematics 261 and Statistics 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Emphasis on conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queueing theory, Gaussian processes, Brownian motion, and elementary stochastic differential equations. Three hours each week.

STT 466-467. Mathematical Statistics (3-3) Prerequisite: Mathematics 261 and Statistics 362. A rigorous introduction to mathematical statistics. Univariate and multivariate probability distributions; conditional and marginal distributions; theory of estimation and hypothesis testing; limiting distributions and the central limit theorem; sufficient statistics and the exponential class of probability density functions. Three hours each week.

STT 475. Topics in Statistics (3) Prerequisite: Senior standing or permission of instructor. Topics of current interest in Statistics not covered in existing courses. Three hours each week.

STT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, and a "B" or better average on all mathematical sciences courses taken.

STT 499. Honors Work in Statistics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

MILITARY SCIENCE (ARMY ROTC)

(Department of Military Science)

The Army Reserve Officer's Training Corps at The University of North Carolina at Wilmington provides men and women, who meet the physical and mental requirements, the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Transfer and graduate students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

The Basic Course

MLS 101. Basic Military Skills I (1) An introduction to first aid, rappeling, self defense, drill and ceremonies, customs of the service and the organization of the Army. One laboratory hour each week.

MLS 102. Basic Military Skills II (1) Marksmanship, survival skills, water operations, rope bridges and leadership. Skills are practiced in an outdoor environment. One laboratory hour each week.

MLS 201. Small Unit Leadership I (1) Prerequisite: Military Science 101 and 102, or permission of instructor. Introduction to small unit leadership, physical readiness training, characteristics and employment of US Infantry weapons. Also includes unit hot and cold weather injury prevention and the conduct of inspections. One laboratory hour each week.

MLS 202. Small Unit Leadership II (1) Prerequisite: Military Science 201 or permission of instructor. Basic map reading, day and night land navigation and orienteering in an outdoor environment. Introduction to the principles of war. One laboratory hour each week.

MLS 211. Basic Camp (4) Six-week camp held at Ft. Knox, Kentucky, which is used to satisfy basic course prerequisite for enrollment into Advanced ROTC. Emphasis is on physical fitness, marksmanship, leadership training, tactical training of the individual soldier, first-aid, and the purpose and function of nuclear, biological, and chemical warfare equipment. Dismounted drill, military courtesy and the wearing of the Army uniform are also examined.

The Advanced Course

Prerequisite: One of the following: Three years of JROTC, a veteran with a favorable reenlistment code, completion of the Basic Course or Military Science 211, or the National Guard or Army Reservist Junior who has finished basic training. Students must maintain a 2.0 grade point average, pass a physical examination and be a US citizen.

MLS 301. Advanced Military Skills (3) Prerequisite: Military Science 202. Land navigation, terrain analysis, NBC defense, communications procedures, first aid, combat intelligence. Includes an overview of the Soviet Army and a discussion of the role of the NCO in the US Army. One laboratory hour each week.

MLS 302. Small Unit Tactics (3) A continuation of Military Science 301, designed to provide the student with practical military skills including military symbols, squad and platoon tactics and a review of communications, weapons, and first-aid. There is a one-hour leadership laboratory held each week which is mandatory for all cadets.

MLS 311. Advanced Camp (0) Six week camp at Ft. Bragg, North Carolina. Advanced leadership techniques, squad and platoon tactics, tactical training of the individual soldier, land navigation, physical fitness, first-aid and NBC skills. In addition, students will be evaluated on their performance as potential junior officers throughout camp.

MLS 401. Staff and Management (3) Prerequisite. Military Science 301, 302. A study of the organization and functions of the military staff, i.e., the Commander, the Personnel Officer, the Intelligence Officer, the Operations Officer and the Supply Officer. Students prepare training schedules and present instruction to basic course cadets during leadership laboratory.

MLS 402. Military Justice (3) Prerequisite: Military Science 401. Advanced military subjects to include the military system of justice; also includes counseling techniques, unit administration, and methods of written and oral communications. There is a one-hour leadership laboratory conducted each week.

Military Science Students who are enrolled in the advanced course must also take History 300 (the American Military Experience), and Philosophy and Religion 215 (Military Ethics), prior to commissioning. Cadets are also required to elect one of the following:

1. Political Science 111—Introduction to Political Science (3)
2. Psychology 145—Psychology Applied to Human Life (3)
3. Sociology 105—Introduction to Sociology (3)
4. Anthropology 105—Introduction to Anthropology (3)

Cadets must also have one year of English composition, a management course, and National Security policy, i.e., Political Science 423 (3) within the first 10 years of federal service. Only 13 credit hours of Military Science courses may count toward graduation.

MEDICAL TECHNOLOGY

(See Professional Programs)

MODERN LANGUAGES

Dr. Beeler, *Chairman*. Mrs. Bellamy, Dr. Lapaire, Mr. Lowe, Dr. J. Mount, Dr. T. Mount, Dr. Perez, Dr. Sparks, Mrs. Stites, Dr. Woodhouse.

A student who offers two high school units in French, German or Spanish, who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose language placement test scores and high school language grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more high school units in French, German, or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

The Department of Modern Languages offers the B.A. degree in French or Spanish.

Requirements for a concentration in French for the B.A. degree: Completion of all 300 level courses in French and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305; History 101 and 102, one course in English literature; and one additional foreign language through the intermediate level.

French Course Descriptions

(Department of Modern Languages)

FRH 101-102. Elementary French (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French; reading, writing, and basic conversation. Three hours each week. Fall and Spring.

FRH 105. French for Tourists (3) General interest course, but designed specifically for those planning to travel in a French- speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and au-

dio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Fall and Spring.

FRH 201-202. Intermediate French (3-3) Prerequisite: French 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations of grammatical points when necessary. Three hours each week. Fall and spring respectively.

FRH 305. Conversation and Composition (3) Prerequisite: French 202 or equivalent. Intensive training in spoken and written French. Three hours each week. Fall.

FRH 306. Advanced Grammar (3) Prerequisite: French 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level. Three hours each week. Fall.

FRH 307. Phonetics (3) Prerequisite: French 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those preparing to teach at the high school level. Three hours each week. Spring.

FRH 311, 312. French Civilization (3,3) Prerequisite: French 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present. Three hours each week. Fall and spring respectively.

FRH 321, 322. Survey of French Literature (3,3) Prerequisite: French 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring respectively.

FRH 336. Explication De Texte (3) Prerequisite: French 305 or equivalent. Training in French textual criticism; oral and written reports. Three hours each week. Spring.

FRH 405. Advanced Conversation and Composition (3) Prerequisite: French 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching. Three hours each week. Offered on demand.

FRH 425. French Literature of the Sixteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports. Three hours each week. Fall 1987 and alternate years.

FRH 426. French Literature of the Eighteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau, and others; oral and written reports. Three hours each week. Fall 1987 and alternate years.

FRH 430. The French Novel of the Twentieth Century (3) Prerequisite: French 322. Reading, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports. Three hours each week. Spring 1987 and alternate years.

FRH 435. The Nineteenth Century French Novel (3) Prerequisite: French 322. Reading, discussion and analysis of major novels; romanticism, realism, and naturalism. Three hours each week. Fall 1988 and alternate years.

FRH 436. French Classicism (3) Prerequisite: French 322. Reading, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Moliere. Three hours each week. Fall 1988 and alternate years.

FRH 437. French Lyric Poetry from Villon to Baudelaire (3) Prerequisite: French 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports. Three hours each week. Spring 1987 and alternate years.

FRH 438. Masterpieces of French Drama (3) Prerequisite: French 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports. Three hours each week. Spring 1988 and alternate years.

FRH 439. Masterpieces of French Prose Fiction (3) Prerequisite: French 322 or equivalent. Representative works of imaginative French prose from the 17th century to the present; oral and written reports. Three hours each week. Spring 1988 and alternate years.

FRH 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

FRH 495. Seminar in French Literature (1-3) Prerequisite: French 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

FRH 499. Honors Work in French (2-3) Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

Requirements for a concentration in Spanish for the B.A. degree: Spanish 305, 306, 307, 311, 312, 321, 322, and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305, History 101 and 102, one course in English literature, and one additional foreign language through the intermediate level.

Spanish Course Descriptions

(Department of Modern Languages)

SPN 101-102. Elementary Spanish (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation. Three hours each week. Fall and spring.

SPN 105. Spanish for Tourists (3) General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audiovisual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Fall and spring.

SPN 201-202. Intermediate Spanish (3-3) Prerequisite: Spanish 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion, and others. Oral discussion to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary. Three hours each week. Fall and spring respectively.

SPN 209. Spanish Literature in Translation (3) Study of representative works from the literature of Spain. Readings and class discussions in English. Three hours each week. Fall 1987 and alternate years.

SPN 210. Spanish-American Literature in Translation (3) Study of representative works from the literature of Spanish America. Readings and class discussion in English. Three hours each week. Spring 1988 and alternate years.

SPN 211. Spain Today (3) An examination of the institutions and social fabric of contemporary Spain as they evolved from raditional roots, including units on history, politics, regional culture, literature, music, art, customs and economic resources. Readings and class discussions in English. Three hours each week. Fall 1988 and alternate years.

SPN 212. Latin America Today (3) An examination of the institutions and social fabric of contemporary Latin America as they evolved from traditional roots, including units on history, politics, indigenous cultures, literature, music, art, customs, and economic resources. Readings and class discussions in English. Three hours each week. Spring 1988 and alternate years.

SPN 304. Business Spanish (3) Prerequisite: Spanish 202 or equivalent. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish-speaking countries are included. Three hours each week. Spring.

SPN 305. Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Intensive training in spoken and written Spanish. Three hours each week. Fall.

SPN 306. Advanced Grammar (3) Prerequisite: Spanish 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level. Three hours each week. Fall.

SPN 307. Phonetics (3) Prerequisite: Spanish 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level. Three hours each week. Spring.

SPN 311, 312. Spanish and Spanish-American Civilization (3,3) Prerequisite: Spanish 202 or equivalent. Geographical, historical and cultural aspects of Spain (311) and Spanish America (312). Three hours each week. Fall and spring respectively.

SPN 321, 322. Survey of Spanish Literature (3,3) Prerequisite: Spanish 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring respectively.

SPN 405. Advanced Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching. Threee hours each week. Offered on demand.

SPN 421, 422. Spanish-American Literature (3,3) Prerequisite: Spanish 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry. Three hours each week. Fall and spring respectively. 1988-89 and alternate years.

SPN 430. Spanish Literature of Middle Ages (3) Prerequisite: Spanish 322 or equivalent. Literature of medieval Spain. Three hours each week. Fall 1988 and alternate years.

SPN 431. Golden Age Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature of the sixteenth and seventeenth centuries. Three hours each week. Spring 1988 and alternate years.

SPN 432. Modern Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the beginning of the eighteenth century to the Generation of 1898. Three hours each week. Fall 1987 and alternate years.

SPN 433. Contemporary Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the Generation of 1898 to the present. Three hours each week. Spring 1988 and alternate years.

SPN 434. Cervantes (3) Prerequisite: Spanish 322 or equivalent. *Don Quixote* and other selected works. Three hours each week. Fall 1988 and alternate years.

SPN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

SPN 495. Seminar in Spanish Studies (1-3) Prerequisite: Spanish 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

SPN 499. Honors Work in Spanish (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

German Course Descriptions

(Department of Modern Languages)

GER 101-102. Elementary German (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation. Three hours each week. Fall and spring respectively.

GER 201-202. Intermediate German (3-3) Prerequisite: German 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and expand his knowledge of the language. Individual projects relating to the student's major field of interest. Three hours each week. Fall and spring respectively.

GER 305. Conversation and Composition (3) Prerequisite: German 202 or consent of instructor. Intensive training in spoken and written German. Three hours each week. Fall 1988 and alternate years.

GER 321, 322. Survey of German Literature (3,3) Prerequisite: German 202 or consent of instructor. Extensive readings covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. 321: Literature through Goethe. 322: Literature beginning with the Romantiker. Three hours each week. Fall and spring respectively. 1987-88 and alternate years.

GER 350. Masterpieces of German Literature in English Translation (3) Reading, discussion, and analysis of representative works by major German authors: Lessing, Goethe, Schiller, Kleist, Hebbel, Hauptmann, Mann, Hesse, and others. Knowledge of German not required. Three hours each week. Spring 1987 and alternate years.

GER 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

Modern Language Course Descriptions

(Department of Modern Languages)

MLN 305. Romance Linguistics (3) Prerequisite: French 307 or Spanish 307 or equivalent. Origins of French and Spanish. Historical phonology, morphology and syntax; some attention to comparative and applied linguistics. Three hours each week. Spring.

Portuguese Course Descriptions

(Department of Modern Languages)

PRT 101-102. Elementary Portuguese (3-3) Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study

of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal. Three hours each week. Fall and spring respectively.

PRT 201-202. Intermediate Portuguese (3-3) Prerequisite: Portuguese 102 or equivalent. 201: A thorough and practical review and summarization of modern Portuguese. Introduction to readings of literary and intellectual value, as well as some materials of social and political interest. Continuation of the aural-oral practice in class. 202: Emphasis on reading for the student in subjects of various types. Materials drawn from fields such as history, politics, sociology, geography, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief grammatical explanations when necessary. Three hours each week. Fall and spring respectively.

MUSIC

(See Creative Arts)

PHILOSOPHY AND RELIGION

Dr. Megivern, *Chairman.* Dr. Altrichter, Dr. Conser, Dr. Gauthier, Dr. McGowan, Dr. Rafalko, Dr. Schmid, Dr. Shinn, Dr. Turrisi, Dr. Wilson.

Requirements for a concentration in Philosophy and Religion for the B.A. degree:

I. **B.A. degree with emphasis in Philosophy:** Philosophy and Religion 101, 103, 110, 115, 201, 202, 400, and 15 additional hours including at least 9 at the 300-400 level.

II. **B.A. degree with emphasis in Religion:** Philosophy and Religion 101, 103, 110, 230 and either the Biblical sequence (235, 236) or the History sequence (238, 240) plus 400 and 15 additional hours including at least 9 at the 300-400 level.

Philosophy Course Descriptions

(Department of Philosophy and Religion)

P&R 101. Invitation to Philosophical Thinking (3) An introduction to various philosophers and philosophical problems from historical, critical, and other perspectives. Three hours each week.

P&R 110. Introduction to Logic (3) Introduction to the principles of logic including the rules of deduction, the categorical syllogism, induction, and fallacies. Initiation in computer logic programs. Three hours each week.

P&R 115. Introduction to Ethics (3) An introduction to fundamental principles, theories, and problems in ethics. Three hours each week.

P&R 201. History of Western Philosophy I (3) A survey of Western philosophical thought in ancient and medieval times. Emphasis on the Greek origins of the philosophical tradition. Readings from the Pre-Socratics, Plato, Aristotle, Roman

philosophy and such Christian thinkers as Augustine and Thomas Aquinas. Three hours each week.

P&R 202. History of Western Philosophy II (3) A survey of Western philosophical thought from the beginning of the modern era to the present. Emphasis on the rationalist and empiricist traditions. Readings from such philosophers as Descartes, Spinoza, Locke, Hume, Kant and Russell. Three hours each week.

P&R 205. American Philosophy (3) A survey of American philosophical thought from colonial times to the present. Readings from such American thinkers as Jonathan Edwards, the Federalist authors, Thoreau, James, Dewey and Quine. Three hours each week.

P&R 211. Toward a Contemporary Philosophy of Man (3) An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology. Three hours each week.

P&R 213. Existentialism (3) An introduction to major themes in existential thought such as freedom, authenticity, death of God, the meaning of life. Primary source readings from existential authors, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Marcel. Three hours each week.

P&R 215. Applied Ethics (3) Examination of the principles and problems in the application of ethics to a particular area of concern. Topics will vary from one course offering to another. (Ethics in the World of Business; Bioethics; Military Ethics). Three hours each week.

P&R 218. Symbolic Logic (3) Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus, consistency and completeness proofs, and mathematical induction. Three hours each week.

P&R 220. Philosophy & Science Fiction (3) A survey of the major philosophical themes explored in contemporary science fiction. Topics covered will include the nature and limits of science and technology, human nature, and the viability of alternative political arrangements. The emphasis will be on learning to identify the philosophical themes that underlie much of contemporary science fiction and to use these to develop a better understanding of the modern world. Readings will include both fiction and contemporary philosophy.

P&R 302. Plato (3) Prerequisite: Philosophy and Religion 101 or 201. Study of the Dialogues of Plato. Analysis of texts; contemporary interpretations. Three hours each week.

P&R 303. Aristotle (3) Prerequisite: Philosophy and Religion 101 or 201. An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation. Three hours each week.

P&R 305. Medieval Philosophy (3) A survey of Islamic, Jewish and Christian philosophical thought in medieval times. Readings from such thinkers as Augustine, Avicenna, Averroes, Maimonides and Thomas Aquinas. Three hours each week.

&R 310. (Political Science 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: Natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality. Three hours each week.

&R 313. Social and Political Philosophy (3) Prerequisite: Philosophy and Religion 101, 115, or consent of instructor. An exploration of philosophical issues and concepts central to an understanding of social and political life, e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest. Three hours each week.

&R 316. The Philosophy of Art (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Investigation and exploration into both traditional and contemporary theories regarding the philosophy of art and its associated problems. Visual Arts, such as painting, sculpture, film, etc., will be examined. Three hours each week.

&R 317. Epistemology (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues in theory of knowledge: nature of knowledge; reasoning, judgment; truth, certainty and probability. Three hours each week.

&R 318. Metaphysics (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues and positions concerning the nature of reality: theories of being, substance, causality. Three hours each week.

&R 320. Philosophy of Mind (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Selected readings drawn from classical and/or contemporary sources bearing on problems of the self, such as the issue of personal identity and the concept of a person, the problem of the relation of mind and body and the question of the nature of consciousness. Three hours each week.

&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

&R 345. Philosophy of Science (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Fundamental issues in the philosophy of science; the nature of scientific method; modes of verification and the role of paradigms. Three hours each week.

&R 400. Colloquium for Majors (3) Prerequisite: Junior or senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors in junior or senior year; open to qualified non-majors.

&R 401. The Philosophy of Immanuel Kant (3) Prerequisite: Philosophy and Religion 101 or 202. An examination of the thought and influence of Kant in his

three great critiques, especially the first, *the Critique of Pure Reason*, as well as in his *Groundwork of the Metaphysics of Morals*. Three hours each week.

P&R 405. Contemporary Philosophical Thought (3) Prerequisite: Philosophy and Religion 101 or 202. Primary source study of the various philosophers of the 20th century, representing the major schools or movements. Three hours each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Religion Course Descriptions

(Department of Philosophy and Religion)

P&R 103. Introduction to Religion (3) Religion as a field of study; major modes of religious expression; chief issues in religious thought and experience; the search for method since the Enlightenment critique; contemporary developments.

P&R 140. Research Tools for Historical and Textual Criticism—Hebrew (3) Basic study of the Hebrew language with special attention to that of the Old Testament. Three hours each week.

P&R 141. Research Tools for Historical and Textual Criticism—Greek (3) Basic study of the Greek language with special attention to that of the New Testament. Three hours each week.

P&R 230. Judaism, Christianity and Islam (3) Survey of the three major Abrahamic faiths; the origins, beliefs and practices of these "people of the Book;" history of their interactions and influence on Western culture. Three hours each week.

P&R 231. Primitive and Classical Religions (3) A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe. Three hours each week.

P&R 232. Asian Religions (3) A survey of Hinduism, Buddhism, Taoism, and Confucianism; historical aspects, basic insights, contemporary relevance. Three hours each week.

P&R 235. Introduction to the Old Testament (3) Historical study of the Hebrew, Canaanite, Sumerian, Babylonian, and Egyptian cultures, based upon primary literary and archaeological sources. Three hours each week.

P&R 236. Introduction to the New Testament (3) Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, lit-

erary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community. Three hours each week.

&R 238. History of Christianity I: Early and Medieval (3) Survey of the basic development of the Christian church from its foundation to the Protestant Reformation. Emphasis on major thinkers and pivotal events that determined the historical trends.

&R 240. History of Christianity II: Modern (3) Survey of the history of Christianity from the Reformation to the present. Accent on the contributions of the chief theologians and the particular problems raised by "modernity" since the 17th century. Three hours each week.

&R 242. Religion in America (3) A survey of religious thought from colonial times to the present; representative Protestant, Catholic, and Jewish thinkers; the phenomenon of "civil religion," church involvement in social and political issues. Three hours each week.

&R 243. Afro-American Religion (3) Study of the religious life of black American communities, with concentration on independent traditions, sects, cults, and a sampling of major thinkers and issues. Three hours each week.

&R 247. Hinduism (3) A survey of Hindu religion and philosophy over its three thousand year history. Examines myths, philosophies, rituals, meditation teachings, and social thought.

&R 255. Historical Geography of Middle East (Biblical Era) (3) Prerequisite: Geography 145 or Philosophy and Religion 235 or consent of instructor. Geographical, archaeological, historical, and geological investigation of the physical environment and cultural landscapes that provide the settings for the evolution of the population, economics, and cultures of southwestern Asia.

&R 334. Old Testament Literature (3) Analysis and interpretation of a particular part of the Hebrew Scriptures. Topics will vary from one course offering to another. (The Torah; the Prophets; the Writings). Three hours each week.

&R 336. New Testament Literature (3) Analysis and interpretation of a particular part of the New Testament. Topics will vary from one course offering to another. (The Gospels; the Acts of the Apostles; the Johannine works; the Letters of Paul). Three hours each week.

&R 337. Apocrypha and Pseudepigrapha (3) Prerequisite: Philosophy and Religion 235 or 236. Analysis of the major Jewish and Christian writings related to but excluded from the Bible, including histories, apocalypses, testaments, prayers, moral tales, and wisdom books.

&R 339. Psychology of Religion (3) A history of the interaction of modern psychology with the Western religious tradition from William James to the present; Freud and Jung, Allport and Menninger, Tillich and May, Hiltner and Pruyser, on such areas as faith and doubt, prayer and prejudice, symbol and guilt, authority and integration of personality. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101 or 103. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 352. Southern Religion (3) A study of religion in the Old South until 1865. Topics include: revivalism; the system of slavery; the Southern way of life; and the religious beliefs and practices of blacks and whites. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior and senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors.

P&R 421. Contemporary Religious Thought (3) Prerequisite: Philosophy and Religion 103. Primary source study of principal religious thinkers of 20th century, especially within Judaism and Christianity. Three hourss each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary source of student-selected philosophic and/or religious problems.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

PHYSICAL EDUCATION

(See Health, Physical Education and Recreation)

PHYSICS

Dr. Alexanian, *Chairman,* Dr. Clator, Dr. Davis, Dr. Haywood, Dr. Hernandez, Mr. Nelson, Dr. Olszewski.

Requirements for a concentration in Physics for the B.A. degree:

Core courses: Physics 201-202, 225, 260, 321, 335, 400 (1 hour), 455, 495, Mathematics 161-162, Chemistry 101- 102 with lab or 105-106-102 with lab.

Also required are the courses in one of the following emphasis alternatives:

Education: Education-Psychology block of 31 semester hours, Biology 105, and three of the following courses: Biology 205, 206, and 207; Chemistry 311-312 with lab; Geology 101, 120, and 150. Students completing this option qualify for teacher certification in physics. By including one biology course from Biology 205, 206, and 207 and two geology courses from Geology 101, 120, and 150, students completing this option also qualify for certification in science.

Premedical Science: Biology 206, 207, and 315 and Chemistry 311-312 with lab.

General: One of the following Physics courses: 415, 445, or 491 (3 semester hours); Accounting 201, Computer Science 111 (with FORTRAN), Geology 101, and Statistics 215.

A "C" or better on each Physics course.

Requirements for a concentration in Physics for the B.S. degree:
Physics 201-202, 311-312, 321-322, 335, 345, 400 (3 semester hours), 411-412, 455,)5, and two of the following: 415, 425, 435, or 445; Chemistry 101-102 with lab; athematics 335, 361 and one additional three semester hour Mathematics course at e 300-400 level.
A "C" or better on each Physics course.
Note: Students interested in the B.S. degree in Physics are advised to take the Physics)1-202 sequence in the freshman year.

Physics Course Descriptions

HY 101-102. Elementary College Physics (4-4) Corequisite: Mathematics 111. Mechanics, heat, sound, light, electricity and magnetism, and introduction to modern physics. Three lecture and two laboratory hours each week.

HY 105. Introductory Physics (4) Terminal course designed to cover basic principles of physics. Three lecture and two laboratory hours each week.

HY 107. Physics of Music (4) Study of the scientific basis of music. Three lecture and two laboratory hours per week.

HY 170. Photography (3) Techniques and procedures in the use of photographic materials and equipment. Two lecture and two laboratory hours each week.

HY 201-202. General Physics (5-5) Corequisite: Mathematics 161-162. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radioactivity and nuclear physics. Four lecture and two laboratory hours each week.

HY 206-207. Problems in General Physics (2-2) Prerequisite: Physics 101-102 and corequisite: Mathematics 161-162. Problems in general physics and their applications. Two problem sessions each week.

HY 215-216. Electric Circuits (4-4) Corequisite: Mathematics 161. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency; phasor and two-port networks. Three lecture and three laboratory hours each week.

HY 225. Electronics (3) Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and two laboratory hours each week.

HY 260. Introduction to Astronomy (3) Descriptive course in principles, theories, and techniques of astronomy. Three lecture hours each week and occasional night viewing.

HY 305. Science for Elementary Teachers (3) Open only to students concentrating in elementary education and to in-service teachers. Biological and physical science areas appropriate for inclusion in elementary schools. Three hours each week.

PHY 311-312. Mathematical Physics (3-3) Prerequisite: Physics 202. An introduction to the mathematical techniques useful in physics: vector analysis, operator and matrix analysis; functions of a complex variable and calculus of residues; differential equations, special functions of mathematical physics; Fourier series and transforms, eigenfunctions and Sturm-Liouville equation; Green's functions; variational methods; and perturbation theory. Three hours each week.

PHY 321-322. Mechanics (3-3) Prerequisite: Physics 202. Elements of Newtonian mechanics, mechanics of continuous media, Lagrange's equation, rotation of a rigid body. Three hours each week.

PHY 335. Introduction to Modern Physics (3) Prerequisite: Physics 202. Survey of modern atomic and nuclear physics, including historical development, relativity, and wave mechanics. Three hours each week.

PHY 345. Quantum Mechanics (3) Prerequisite: Physics 335 and corequisite: Mathematics 361. An introduction to the basic principles of quantum mechanics. Topics include operators; symmetry; orbital and spin angular momentum; and applications to simple systems. Three hours each week.

PHY 400. Advanced Laboratory (1) (May be repeated for up to three hours credit) Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer. One hour each week.

PHY 411-412. Electricity and Magnetism (3-3) Prerequisite: Physics 202 and corequisite: Mathematics 261. Electric and magnetic field theory; Poisson's and Laplace's equation; harmonic methods, special methods for solution of electrostatics problems, material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics. Three hours each week.

PHY 415. Solid State Physics (3) Prerequisite: Physics 335. A study of the basic properties of solids—crystal structure; mechanical, thermal and electromagnetic properties as determined by the phonon, electron, and magnon characteristics. Three hours each week.

PHY 425. Atomic and Molecular Physics (3) Prerequisite: Physics 345. The quantum theory of atomic and molecular structure and spectra. Topics include relativistic and electromagnetic interactions; the hydrogen atom, the helium atom, multielectron atoms; radiative and Auger transitions, selection rules; diatomic and simple polyatomic molecules. Three hours each week.

PHY 435. Nuclear Physics (3) Prerequisite: Physics 345 or consent of instructor. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators. Three hours each week.

PHY 445. Optics (3) Prerequisite: Physics 202 and Mathematics 261. Physical and geometrical optics. Huygen's principles, electromagnetic theory of light. Three hours each week.

PHY 455. Thermal Physics (3) Prerequisite: Physics 335 or consent of instructor. Principles of thermodynamics and heat transfer; response of molecules to tem-

perature effects illustrated by introduction to kinetic theory and statistical mechanics. Three hours each week.

PHY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PHY 495. Physics Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in physics.

PHY 499. Honors Work in Physics (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 72.

POLITICAL SCIENCE

Dr. Dixon, *Chairman*. Dr. Ahmad, Dr. Johnston, Dr. Jones, Dr. Lowery, Dr. Sheridan, Dr. Wagoner.

Requirements for a concentration in Political Science for the B.A. degree: Thirty-six hours of Political Science which must include 101-102, 111, 210 and 211. Eighteen hours must be at the 300-400 levels and at least one 300-400 level course must be taken in each of the following sub-fields: American Government and Politics, Political Theory and Methodology, International Relations, and Comparative Government.

A "C" or better average on all 300-400 level Political Science courses.

Required collaterals: Twenty-four hours selected from at least four of the following disciplines: Anthropology, Economics, Environmental Studies, Geography, History, Psychology, and Sociology. In addition, a research skill is required. This can be demonstrated by either of the following methods: passing the Statistics in the Social Sciences course offered by the Mathematical Science Department or passing six semester hours in one of the modern foreign languages.

Students planning to do graduate work are urged to study a modern foreign language and acquire a basic knowledge of Computer Science, Statistics and Mathematics through the calculus.

Political Science Course Descriptions

(Department of Political Science)

PLS 101-102. American National Government (3-3) 101 focuses upon basic principles, institutions and functions such as federalism, separation of powers, civil liberties, and judicial review. 102 introduces the political environment of public opinion, political parties and interest groups and traces its impact upon national policy areas, such as civil rights, the economy, and national defense.

PLS 111. Politics and Government in Global Perspective (3) A survey from a cross-national, comparative perspective of politics and governmental institutions within and among nation-states. Attention will also be given to the role of political theory and ideology in the governance of states. Three hours each week.

PLS 202. Contemporary Political Issues (3) A critical examination of selected contemporary domestic and international policy issues. Three hours each week.

PLS 206. American State Government and Politics (3) A survey and analysis of the organization, functions, and political processes of the American states. Three hours each week.

PLS 207. American Urban Government and Politics (3) A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics. Three hours each week.

PLS 210-211. Research Methods in Political Science (3-3) An introduction to the rationale and application of basic methods of political research. PLS 210 focuses on library research, the information sources of government and politics and how to use them. PLS 211 introduces quantitative methods – the principles, applications, and limitations of statistical and computer analysis of political phenomena. Three hours each week.

PLS 300, 301. American Constitutional Law (3,3) Prerequisite: Political Science 101. Analytical study of U.S. Supreme Court decisions affecting separation of powers and individual rights. 300: the powers of the judicial, executive, and legislative branches of national government; the relationships among these branches; and the federal system. 301: individual rights and liberties other than procedural rights of persons involved with the criminal justice system. Three hours each week.

PLS 302. Public Opinion and Democracy (3) Prerequisite: Political Science 211 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience. Three hours each week.

PLS 303. Elections and Voting Behavior (3) Prerequisite: Political Science 211 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II. Three hours each week.

PLS 304. Introduction to Public Policy Analysis (3) Prerequisite: Political Science 101. A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation.Three hours each week.

PLS 305. The Constitution and the Criminal Justice System (3) Prerequisite: Political Science 101. Study of U.S. Supreme Court decisions on rights of suspects, defendants, witnesses, and convicted criminals. Three hours each week.

PLS 307. The American Legislature (3) Prerequisite: Political Science 101. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process. Three hours each week.

PLS 308. Public Administration (3) Prerequisite: Political Science 101. Introduction to public administration in the United States. Nature and scope of public admin-

istration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management. Three hours each week.

LS 309. The American Chief Executive (3) Prerequisite: Political Science 101. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor. Three hours each week.

LS 310. (Philosophy 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality. Three hours each week.

LS 311. (Sociology 311) Techniques of Public Opinion Polling (3) Prerequisite: Political Science 211 or consent of instructor. Basic skills in all phases of public opinion polling; issue focus; questionnaire construction; sample selection, interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills. Three hours each week.

LS 313. Early Political Thought (3) An introduction to the origin and development of political theory from the 5th Century B.C. through the medieval era. Emphasis will be placed on the political ideas of Plato, Aristotle, the Epicureans, the Stoics, Cicero, Augustine, medieval philosophers, and Aquinas in order to discover the recurring themes of political inquiry. Three hours each week.

LS 314. Modern Political Thought (3) A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T. H. Green and Nietzsche. Three hours each week.

LS 315. Contemporary Political Ideologies (3) A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left. Three hours each week.

LS 316. Women and Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. An introduction to political perspectives on sex role differentiation. Among the topics to be discussed will be political socialization of women in ancient and modern society; women's roles in politics and government; political consequences of women's entry into the work force; and contemporary issues in the women's movement. Emphasis will be placed throughout on comparative political analysis. Three hours each week.

LS 330. Political Systems of Africa (3) The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on contemporary economic, social and political problems. Three hours each week.

PLS 331. Politics in Developing Nations (3) An examination of the political, economic, and social problems confronting developing nations. Attention will be given to such issues as cultural pluralism, one-party states, military dictatorships, and U.S. relations with the developing world. Three hours each week.

PLS 335. European Political Systems (3) Political institutions and processes of selected European countries, including Great Britain, France and Germany. Three hours each week.

PLS 336. Political Systems of the Soviet Union and Eastern Europe (3) A comparative study of the political institutions and processes of the Soviet Union and the eastern European countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China. Three hours each week.

PLS 338. Political Systems of the Middle East (3) The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied. Three hours each week.

PLS 339. Political Systems of Asia (3) The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries. Three hours each week.

PLS 340. Blacks in American Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system. Three hours each week.

PLS 405. American Parties and Pressure Groups (3) Prerequisite: Political Science 211 or consent of instructor. An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment. Three hours each week.

PLS 406. Contemporary Southern Politics (3) Political Science 211 or consent of instructor. An examination of recent developments throughout the American South and their impact on national politics. Topics covered include southern political culture, the decline of the one-party system, and the changing roles of blacks and organized labor. Emphasis is placed upon independent research projects involving student analysis of census, election return, and public opinon survey data. Three hours each week.

PLS 407. The American Judicial Systems (3) Prerequisite: Political Science 101. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial

policy-making, selection of judges, the role of lawyers, and socio- metric relationships within the judiciary. Three hours each week.

LS 415. American Political Thought (3) American political thought from the colonial period to the present. Three hours each week.

LS 422. Contemporary American Foreign Policy (3) Prerequisite: Political Science 101 or 111. The roles and interrelationships of Congress, the media, public opinion, the President, the Secretaries and Departments of State and Defense, and the intelligence community are examined. Emphasis is placed on the content and the dynamic aspects of the process of policy formulation and implementation. Three hours each week.

LS 423. National Security Policy (3) Prerequisite: Political Science 101. A study of formulation of security policy, including the roles of the executive and legislative branches and of non-governmental factors; evolution of changing assumptions, strategies, and goals; the nature of U.S. security requirements, U.S. military commitments abroad, and the cost of strategies based on weapons superiority, arms control, and disarmament.

LS 425. International Politics (3) Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states. Three hours each week.

LS 426. International Law (3) Prerequisite: Political Science 101. Nature, development and basic concepts of international law. Examination of the scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations. Three hours each week.

LS 427. International Organizations (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A survey of the evolution, objectives and methods of various types of regional and universal organizations and their role in contemporary international relations. Special emphasis will be placed on the principal functions and agencies of the United Nations and the European economic community. Three hours each week.

LS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

LS 495. Departmental Seminar (1-3) Prerequisite: Six hours of Political Science and consent of department chairman. Consideration of special topics in Political Science. May be repeated for additional credit.

LS 498. Internship in Political Science (3-6) Prerequisite: Political Science 111, 101, 211, and at least one of the following: Political Science 300, 304, or 308. This course is open only to persons taking a concentration in political science who are classified as juniors or seniors. The internship involves an experiential learning situation in selected public or private agencies or with an individual which allows the student to utilize academic training while learning from a practical field experience. A formal research project is a major part of the internship.

PLS 499. Honors Work in Political Science (2-3) Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

For 292 and 492, see explanation on p. 72.

PSYCHOLOGY

Dr. Williams, *Chairman*. Dr. Applefield, Dr. Bradley, Dr. Brown, Dr. Bruce, Dr. Galizio, Dr. Jackson, Dr. Johnson, Dr. Kishton, Dr. Kowal, Dr. Lakey, Dr. Lamb, Dr. Newton, Dr. Overman, Dr. Phillips, Dr. Pilgrim, Dr. Puente, Dr. Sanders.

Requirements for a concentration in Psychology for the B.A. degree: Psychology 105, 225, 355, 405, one course from each of the six categories listed below, and nine additional hours in Psychology. Category 1: Psychology 220, 221, 320, 323 or 324. Category 2: Psychology 410, 412, or 417. Category 3: Psychology 418, 456 or 457. Category 4: Psychology 346, 347 or 365. Category 5: 336, 337 or 425. Category 6: Psychology 350, 352, 422, or 450. No more than one course with a grade of "D" can count toward the requirements for a concentration in Psychology, and there must be a "C" or better average on all courses attempted within the department. Twelve hours of collaterals, approved by the department, are required.

Psychology Course Descriptions

PSY 105. General Psychology (3) Principles of psychology with emphasis on scientific methods used in studying human behavior. Three hours each week.

PSY 110. Self-Management and Self-Motivation (3) Techniques and concepts to provide knowledge, skills, and attitudes to improve performance. Development in coping skills, including determination and modification of motivation, self-management and time-management skills, and efficient methods of learning and organizing materials and solving problems. (Not for Social Science General Degree requirement or Psychology major credit.)

PSY 145. Psychology Applied to Human Life (3) A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment. Three hours each week.

PSY 216. Educational Psychology (3) Prerequisite: Psychology 105 is suggested. Study of the application of psychological theories and principles in educational settings. Three hours each week.

PSY 220. Child Psychology (3) The study of human psychological development through childhood and early adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

PSY 221. Adolescent Psychology (3) The study of human psychological development from late childhood through adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

PSY 225. Introductory Statistics for the Behavioral Sciences (4) Prerequisite: Psychology 105 and three credit hours in mathematics. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes or hypothesis testing. Parametric techniques are emphasized, but nonparametric tests are included. Three lecture and two laboratory hours each week.

PSY 245. Drugs and Behavior (3) Prerequisite: Three semester hours credit in Psychology. An examination of the psychological aspects of drug use and abuse. Emphasis will be on the effects of major psychoactive drugs (including alcohol) on behavior, the psychological determinants of drug use, and treatment of drug abuse. Three hours each week.

PSY 262. Psychology of Consciousness (3) Prerequisite: Psychology 105. A study of the mental processes which occur during various states of human consciousness such as sleep, biofeedback and meditation. Emphasis on the research and theories of brain processes during states of consciousness. Three hours each week.

PSY 265. Human Sexual Behavior (3) Prerequisite: Three hours of Psychology, excluding Psy 110. Examination of the psychological aspects of human sexuality with emphasis on psychosexual development and behavior. Includes discussion of causative factors and treatment of sexual disorders and deviations. Three hours each week.

PSY 275. Psychology of Sex Differences (3) Prerequisite: Psychology 105 or 145. An examination of biological and learned determinants of sex-typed behaviors, current research findings on sex-typed habits and attitudes, and their implications for interpersonal relationships and personal adjustment. Three hours each week.

PSY 311. Psychology of Language (3) Prerequisite: Psychology 105. An introduction to theory and research concerning human language use. Topics will include the nature of human linguistic competence, the perception of speech, the comprehension of speech, memory for verbal information, the production of speech, and the biological basis of human language. Three hours each week.

PSY 320. Developmental Psychology (3) Prerequisite: Psychology 105 or 220. Examination of various areas of behavior (motor, social and intellectual) and theoretical explanations of their development. Emphasis on underlying psychological and biological processes. Three hours each week.

PSY 322. Psychology of Exceptional Children (3) Prerequisite: Psychology 105 or 220. A study of the physical, cognitive, and personality characteristics of the major types of childhood exceptionality, including high intelligence and creativity, mental retardation, learning disabilities, emotional disorders, language impairments, and sensory and physical handicaps. Issues such as assessment, etiology, family relations, and treatment will be discussed. Three hours each week.

PSY 323. Lifespan Human Development (3) Prerequisite: Three hours in Psychology. An exploration of the variables and factors underlying human growth and development across the lifespan. Physical, cognitive, social, emotional, and sexual development are emphasized. Three hours each week.

PSY 324. Psychology of Adulthood and Aging (3) Prerequisite: Three hours in Psychology, excluding Psy 110. A developmental approach to the portion of the lifespan from young adulthood through sensescence. Emphasis on the interaction of psychological, psychosocial and physiological aspects of development. Three hours each week.

PSY 336. Industrial Psychology (3) Prerequisite: Psychology 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work. Three hours each week.

PSY 337. Vocational Psychology (3) Prerequisite: Psychology 105 or permission of instructor. The study of individual vocational behavior and development. Topics include the history of vocational psychology, theories of vocational development and choice, as well as stimulus, organismic, and response variables correlated with the choice process. Attention is directed toward theories and research concerning the meaning of vocational motivation and vocational adjustment, as well as the prediction of vocational success and satisfaction. Systems for defining vocational problems are included. Three hours each week.

PSY 346. Psychology of Personality (3) Prerequisite: Psychology 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality. Three hours each week.

PSY 347. Psychopathology (3) Prerequisite: Psychology 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders. Three hours each week.

PSY 350. Principles of Behavioral Change (3) Prerequisite: Psychology 105. Application of the principles of behavioral control in interpersonal, educational, and clinical settings. Primary emphasis will be on behavioral modification techniques such as contingency management, desensitization, biofeedback, etc.

PSY 352. Behavioral Medicine (3) Prerequisite: Psychology 105 or 145. Integrates psychological and biomedical knowledge relevant to physical health and illness. Describes the interaction of psychological phenomena with the epidemiology, etiology, pathogenesis, treatment, and rehabilitation of physical disorders. Three hours each week.

PSY 355. Introduction to Experimental Psychology (4) Prerequisite: Psychology 225. Basic principles of psychological research design and evaluation, including techniques of data collection and analysis, and conduct, interpretation, and reporting of various types of psychological research. Experimental research is emphasized. Three lecture and three laboratory hours each week.

PSY 365. Social Psychology (3) Prerequisite: Psychology 105. The study of individual human behavior as a function of the influence of other persons. Emphasis on the psychology of person perception, interpersonal communication and relationships, attitude formation and change, and small group behavior. Three hours each week.

PSY 366. Psychology of Marriage and Family (3) Prerequisite: Three hours of Psychology. The study of personality development within the marriage and family

including recent theoretical and empirical findings on courtship, interpersonal attraction, marriage contract, and the various stages of the family life cycle. Communication, familial functioning and dysfunctioning are emphasized. Three hours each week.

PSY 370. (Environmental Studies 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

PSY 405. History and Systems of Psychology (3) Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends. Three hours each week.

PSY 410. Cognitive Psychology (4) Prerequisite: Psychology 355. Introduction to theories and research related to human cognition. Memory, attention, problem solving, and thinking are emphasized. Three lecture and three laboratory hours each week.

PSY 412. Sensation and Perception (4) Prerequisite: Psychology 225 and 355 or consent of instructor. Survey of sensory and perceptual processes, techniques for measuring sensations and perceptions, and theories of perception. Psychological, anatomical, physiological, and environmental factors important in determining how we perceive the world are examined. Demonstrations will introduce students to interesting perceptual phenomena. Three lecture and three laboratory hours each week.

PSY 417. Psychology of Learning (4) Prerequisite: Psychology 355. Study of the basic facts related to the learning process. Effects of reinforcement, extinction, generalization and discrimination, verbal learning and retention, as well as other phenomena, are considered. Three lecture and three laboratory hours each week.

PSY 418. Motivation and Emotion (3) Prerequisite: Psychology 105. Psychological theory and research in the areas of motivation and emotion. Basic as well as more complex motive states will be examined as they arise from physiological needs and from learning and cognitive processes. Data from animal as well as human studies will be considered. Three hours each week.

PSY 422. Child Psychopathology (3) Prerequisite: Psychology 105 and either Psy 220, 322, or 420. Advanced study of child psychopathology emphasizing behavioral, biological, and psychodynamic approaches. The major disorders of childhood will be compared in terms of etiology, manifestations, and treatments. Low incidence and multiple-handicapping conditions will also be considered. Three hours each week.

PSY 425. Psychological Tests and Measurements (4) Prerequisite: Psychology 105 and 225 or consent of instructor. Introduction to theory and practice of test construction, including a survey of intelligence, achievement and personality tests and their applications. Three lecture and two laboratory hours each week.

PSY 449. Psychology of Death (3) Prerequisite: Psychology 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered. Three hours each week.

PSY 450. Introduction to Counseling (3) Prerequisite: Psychology 346 and 347. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored. Three hours each week.

PSY 451. Supervised Counseling Practice (3) Prerequisite: Psychology 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations. The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit. Three hours each week.

PSY 452. Ethical Principles in Psychology (1) Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research.

PSY 455. Advanced Psychological Research (3) Prerequisite: Psychology 355 and consent of instructor. Experience in the design, conduct, and evaluation of psychological research. Advanced design and analysis techniques. Each student designs and conducts a research project and a laboratory exercise for Psychology 355. Three hours each week. Offered on demand.

PSY 456. Physiological Psychology (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior. Three hours each week.

PSY 456-51. Methods in Physiological Psychology (1) Prerequisite or corequisite: Psychology 456. A study of basic mammalian neuroanatomy and methodology of physiological psychology. Gross anatomy of the brain is taught by using sheep brains, slides and tape series. Includes demonstrations of brain research methods such as small animal surgery, brain stimulation and recording, and preparation of brain tissue for microscopic examiination. Two laboratory hours each week.

PSY 457. Animal Behavior (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phylogenetic positions. Three hours each week.

PSY 457-51. Animal Behavior Laboratory (1) Prerequisite or corequisite: Psychology 457. Laboratory exercises in animal behavior, including both field and traditional laboratory techniques. Three laboratory hours each week.

SY 465. Community Psychology (3) Prerequisite: Psychology 105. Psychology 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health. Three hours each week.

SY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

SY 495. Topical Seminar (1-3) Prerequisite: Psychology 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

SY 499. Honors Work In Psychology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 72.

RECREATION

(See Health, Physical Education and Recreation)

SOCIAL SCIENCE

Participating disciplines: Anthropology, Earth Sciences, Political Science, Psychology, Sociology.

Requirements for a concentration in Social Science for the B.A. degree: Fifty-ne hours in the Social Sciences, with a minimum of 30 hours in courses above 299. t least one course is required in each of the five participating disciplines, or at least ne course required in four disciplines with an additional course in Economics. A inimum of 21 hours is required in the primary concentration area, with at least 15 these hours in courses above 299. A minimum of 12 hours is required in each of vo secondary concentration areas. At least six additional hours in Social Science are equired.

Additional required courses include: a Research Methods course, the discipline of is course to be decided by the advisor and the student (3 hours); an appropriate tatistics course (3 hours); a two-course History sequence, or an appropriate pairing be decided by the advisor and the student (6 hours). A Computer Science course is ecommended, but not required. At least a 2.0 grade point average in the Social Science oncentration must be attained.

A faculty member within the area of primary concentration shall serve as the student's dvisor. Note: The primary concentration area may not serve as a discipline in a double ajor.

SOCIOLOGY AND ANTHROPOLOGY

r. Sabella, *Chairman.*

The Department of Sociology and Anthropology is comprised of Anthropology, Crimal Justice, Social Work and Sociology. The baccalaureate degree is offered in both ociology and Anthropology.

Anthropology

r. Lerch, Dr. Loftfield, Dr. McCall, Dr. Sabella.

Requirements for a concentration in Anthropology for the B.A. degree: Anthroology 206, 207, 207-51, 210, 345, 450 and 21 additional hours comprised of two

courses from each of the first three subfields listed below and one from the linguistics group. Physical: 320, 322, 324, 430. Archaeology: 307, 311, 312, 411. Cultural: 301, 302, 303, 304, 305, 306, 309, 317, 350. Linguistics: 208, Psychology 311, English 320, 322. Although no collateral courses are required, students contemplating a professional career in anthropology are urged to study a foreign language and acquire basic skills in computer science and statistics. Anthropology advisors may recommend additional courses in the sciences, humanities, or mathematics commensurate with individual career plans. A "C" grade point average over-all is required in departmental courses, and at least a "C" grade is mandatory in specific courses required in the department.

Anthropology Course Descriptions

(Department of Sociology and Anthropology)

ANT 105. Introduction to Anthropology (3) Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man. Three hours each week.

ANT 205. (Sociology 205) Human Societies (3) The comparative study of human society and culture, with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamics of social process and cultural change are also introduced. Three hours each week.

ANT 206. Cultural Anthropology (3) A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures. Three hours each week.

ANT 207. Archaeology (3) The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

ANT 207-51. Archaeological Laboratory (1) Corequisite or prerequisite: Archaeology 207. Course is designed to familiarize students with techniques of archaeological recovery, preparation, preservation, and analysis of recovered archaeological materials. Laboratory work will parallel lecture, providing practical experience in techniques covered as part of lecture course. It is not necessary to take the lab in order to take lecture. Three hours each week.

ANT 208. Language and Culture (3) Human language, its characteristics and its relationship to other communication systems will be examined. The use of language to illuminate historical relationships and current sociocultural processes will be discussed, as well as ways in which one can investigate culture through cognitive structures elicited from speech. Three hours each week.

ANT 210. Physical Anthropology (3) Examination and correlation of fossil remains and artifacts preserved in the geologic record as related to the anatomy and behavior of living human and non-human primate groups. Three lecture hours each week.

ANT 230. (Sociology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are reviewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

ANT 250. Anthropology Through Film (3) A series of anthropological (ethnographic) films exploring life and values, especially in nonwestern societies, provide the primary course material. The films are used as a surrogate field experience to introduce a number of major anthropological topics that receive further emphasis in assigned readings and class discussion. Ethnocentrism, adaptation, warfare and acculturation among other themes are explored in this course. Three hours each week.

ANT 301. Shamanism, Witchcraft, and Cults (3) Prerequisite: Anthropology 105 or consent of instructor. A study of the religious institutions of traditional band, tribal, and peasant societies. Topics cover psychological stress, social control, and ritual healing. The cult within modern western society will be compared with those in traditional preindustrial society. Three hours each week.

ANT 302. Traditional Societies in the Modern World (3) Prerequisite: Anthropology 105 or consent of instructor. An assessment of the impact of Western industrial societies on primitive and peasant peoples of the world. Themes of acculturation, underdevelopment, modernization, economic dependency and rural to urban migration will be treated from a cross-cultural perspective. Three hours each week.

ANT 303. Women, Work and Culture (3) Prerequisite: Anthropology 105 or Sociology 105 or consent of instructor. A study of women's work in traditional societies (primarily Third World). The allocation of work to women is seen as affected by such factors as: socialization and gender defintion, economic exchange patterns, division of labor, religious beliefs, political structure, and the impact of modernization and development policies on work and family roles of Third World women. Three hours each week.

ANT 304. Indians of South America (3) Prerequisite: Consent of instructor. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent. Three hours each week.

ANT 305. Indians of North America (3) Prerequisite: Consent of instructor. Surveys of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence. Three hours each week.

ANT 306. Principles of Kinship and Social Organization (3) Prerequisite: Anthropology 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns. Three hours each week.

ANT 307. New World Archaeology (3) Prerequisite: Anthropology 105 or 207 or consent of instructor. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered. Three hours each week.

ANT 308. Marine Archaeology: Methods and Theory (3) Prerequisite: Anthropology 207, Diver's Certificate, 310 corequisite. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized. Three hours each week.

ANT 309. Environmental Anthropology (3) Prerequisite: Anthropology 105 or 206 or 207 or consent of instructor. A study of cultural adaptations as responses of human populations to varied environments; this course will focus upon cultural vs. biological adaptation from the archaeological past to the ethnographic present.

ANT 310. Marine Archaeology: Field Practicum (3-6) Prerequisite: Anthropology 207, Diver's Certificate, 308 corequisite. Practical field methods will be taught utilizing actual underwater prehistoric or historic sites. Survey techniques, excavation, record-keeping and preservation will be stressed and adapted to a submarine environment.

ANT 311. Field Methods in Archaeology (3-6) Prerequisite: Anthropology 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

ANT 312. Historical Archaeology (3) Prerequisite: Anthropology 105 or consent of instructor. Substantive investigation of the special excavation and analysis procedures, subject matter, and goals of archaeology as applied to the historic past of North America. Special emphasis will be placed upon historic archaeological sites in the local (Southeastern North Carolina) region. Lecture, laboratory and field work involved. Three hours each week.

ANT 317. The Human Condition in Latin America (3) Prerequisite: Anthropology 105 or consent of instructor. This course applies the anthropological perspective to the study of the complex national cultures of Latin America. Topics covered focus on the problem of relating peasant communities, small towns, urban slums, middle class neighborhoods, and clubs and social networks to regional and national institutions. Three hours each week.

ANT 320. Human Origins (3) Prerequisite: Anthropology/Earth Sciences 210 or consent of instructor. Classification and history of human evolution deduced from the fossil record and molecular data. Discussion of Tertiary hominoids and emergence of humans with emphasis on Australopithecines and later Pleistocene hominids. Three hours each week.

NT 322. Primate Biology and Behavior (3) Prerequisite: Anthropology 210 or consent of instructor. Ecology, social behavior, and functional morphology and classification of living primates (prosimians, monkeys, and apes); their evolutionary history and development. Three hours each week.

NT 324. Human Biological Variation (3) Prerequisite: Anthropology 210 or consent of instructor. Nature and extent of heritable differences among human populations in evolutionary perspective. Consideration of effects of environmental factors on genic expression. Three hours each week.

NT 345. Method and Practice in Cultural Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of ethnographic field methods through selected readings demonstrating field techniques of major figures in cultural anthropology, both past and present. Practice involves exercises in participant-observation, indepth interviewing, survey research, photographic analysis, and tape recordings of cultural events. Three hours each week.

NT 350. Maritime Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of fishermen, navigators, boatbuilders, and seamen. This course traces the origins and development of human maritime adaptations in selected regions of the world. Themes include primitive and traditional fisheries, technological innovation, fisheries management and law of the sea. Three hours each week.

NT 387. (Art 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition, and education. Three hours each week.

NT 387-51. (Art 387-51) Museum Studies Practicum (1) Prerequisite: Permission of instructor. Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

NT 411. Advanced Field Training in Archaeology (3) Prerequisite: Anthropology 105, 207, 311, and consent of instructor. Supervisory training for field archaeologists. Students direct specific aspects of archaeological excavation, including research design, data recovery, daily site management, and field analysis. For the advanced archaeology student only. Three hours each week.

NT 430. (Biology 430) Evolutionary Biology (3) Prerequisite: Biology 335 (Genetics). Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three hours each week.

NT 450. History of Anthropological Theory (3) Prerequisite: Six hours of anthropology above the introductory level or consent of instructor. This course traces the development of anthropological theory through the research and writings of key figures in the field. Attention is directed toward social and intellectual contexts out of which anthropological theories emerge. Three hours each week.

ANT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

ANT 495. Topical Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

ANT 499. Honors Work in Anthropology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 72.

Sociology

Dr. Blanks, Dr. Dixon, Dr. Faulkner, Dr. Huer, Dr. LaGrange, Dr. Levy, Dr. Maxwell, Dr. McNamee, Dr. Miller, Dr. Polgar, Dr. Scalf, Dr. Shevach, Dr. Willis.

Requirements for a concentration in Sociology for the B.A. degree: Sociology 105, 306, 360, 406, 460, 490, and 18 additional hours, 12 of which must be at the 300-400 level. Statistics 205 and Computer Science 105 or Sociology 306-51 are required. Collaterals will be decided in consultation with each advisee. Within Sociology some areas of emphasis are deviance and social control, demography and environmental studies, urban and community studies, family and leisure studies, organizations and bureaucracy, and medical and gerontolgy. A "C" grade point average over-all is required on departmental courses, and at least a "C" grade is mandatory on specific courses required in the department.

Criminal Justice and Social Work are areas of specialization in the department. The department offers some alternatives to the above-listed requirements for students specializing in Criminal Justice or Social Work. The alternative requirements are available in the department.

Criminal Justice Course Descriptions

(Department of Sociology and Anthropology)

CRJ 201. Introduction to Criminal Justice (3) Study of the criminal justice system as a social process. Analysis of structure and function of law enforcement, courts, corrections, and probation and parole. Three hours each week.

CRJ 240. Issues in Criminal Justice (3) Examination of critical issues in contemporary criminal justice systems, with emphasis on alternative approaches. Three hours each week.

CRJ 306. (Social Work 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

CRJ 340. Police in Society (3) Prerequisite: Criminal Justice 201. Analysis of role and function of police in the United States. Special attention to the social arena in which the police operate and the effect of societal changes on policy systems. Three hours each week.

RJ 350. Criminal Courts and the American Justice System (3) Prerequisite: Criminal Justice 201. Analyzes the dynamics of American criminal courts. Examines relationships among the courthouse work-group (police, prosecutor, defense attorney, judge) and discusses the roles assumed by witnesses, victims, defendants and jurors. Three hours each week.

RJ 395. Corrections (3) Prerequisite: Criminal Justice 201. Studies societal patterns of punishment, alternatives to incarceration, consequences of imprisonment and correctional strategies of rehabilitation and deterrence. Three hours each week.

RJ 405. Criminal Justice Administration (3) Prerequisite: Criminal Justice 201, 240, and consent of instructor. A concentration on management techniques for each administrative segment of criminal justice: the police, the courts, prosecution/defense, probation, parole and corrections. It will offer alternative models, based on a system approach to function and role, that relate each criminal justice sub-system administratively to the others. Three hours each week.

RJ 410. World Criminal Justice Systems (3) Prerequisite: CRJ 201 plus six additional hours in Criminal Justice. Comparative study of criminal justice systems throughout the world. Attention to historical, structural, political, legal and philosophical similarities and differences. Analysis includes criminal justice systems of England, France, Sweden, Japan and the Soviet Union. A topical paper is required. Class limited to 20 students. Three hours each week.

RJ 450. Criminal Justice Theory (3) Prerequisite: Criminal Justice 201 plus six additional hours in Criminal Justice. An analysis of the development of theories of justice and crime control. The theories and principles upon which the American system of justice is based are covered. Three hours each week.

RJ 490. Criminal Justice Practicum (3-6) Prerequisite: Senior standing in criminal justice. Field placement in various criminal justice agencies. Integrates practical experience with classroom knowledge. Weekly summaries and a final report are among course requirements.

RJ 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

RJ 495. Topical Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in the regular courses.

For 292 and 492, see explanation on p. 72.

Social Work Course Descriptions

(Department of Sociology and Anthropology)

WK 235. Introduction to Social Work (3) History, methods, and practice in professional social work in the United States. Three hours each week.

WK 245. Human Behavior in the Social Environment (3) Prerequisite: Social Work 235. A survey of the human behavior from a social systems standpoint. Emphasis on concepts and theories relevant to social work intervention with individuals, families, groups, organizations, and communiteis. A theoretical

foundation for specialized areas of casework, group work, and community organization is provided. Three hours each week.

SWK 301. Social Casework Methods (3) Prerequisite: Social Work 235. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and utilization of systematic processes of problem solving int he delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

SWK 302. Social Group Work Methods (3) Prerequisite: Social Work 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required. Three hours each week.

SWK 306. (Criminal Justice 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis off data and its implications, research methods with emphasis on practical application. Three hours each week.

SWK 310. Programs and Policies for Older Americans (3) Prerequisite: Social Work 235. Health, social,and income needs of an aging population will be related to current laws, programs, administrative networks, and politics. Current issues in the development of programs such as age-integration, community based services, advocacy and protection will be covered. Three hours each week.

SWK 318. Social Work and Health Care Delivery (3) Prerequisite: Social Work 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

SWK 336. Suicidology and Crisis Intervention (3) Prerequisite: Social Work 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventative techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises. Three hours each week.

SWK 396. Community Organization and Social Practice (3) Prerequisite: Social Work 235. The course analyzes a variety of forms of community organization practice, focusing on definition of goals, values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in community life. Community needs and resources available to meet these needs are studied. Three hours each week.

SWK 435. Social Welfare Policies (3) Prerequisite: Social Work 235, 301, and 302. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services, policies and programs are being developed by our society and other countries. Three hours each week.

SWK 490. Social Work Practicum (3-6) Prerequisite: Consent of instructor. A field experience in selected social agencies designed to permit student application and inte-gration of cognitive and affectual learning with a formalized service system. Learning experiences and content are designed to gain and demonstrate beginning knowledge, attitudes and skills which are consistent with the concepts of social practice. The student will participate in a two hour weekly seminar.

SWK 490-51. Social Work Laboratory (1) Prerequisite: Social Work 490 corequisite. Integration of practicum and theory through the discussion of selected topics related to social work practices. To be taken concurrently with Social Work 490. Two hours each week.

SWK 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SWK 495. Topical Seminar (1-3) Prerequisite: Sociology 105, Social Work 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

For 292 and 492, see explanation on p. 72.

Sociology Course Descriptions

(Department of Sociology and Anthropology)

SOC 105. Introduction to Sociology (3) Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed. Three hours each week.

SOC 110. Sociology in Contemporary Life (3) An introductory level course designed to enable students to think about and interpret the social world and events around them. Emphasis will be placed on discovering your social self, understanding social interaction, and interpreting the relationship of the individual with modern industrial society. Three hours each week.

SOC 200. Sociology of Sport (3) A sociological examination of the rise of sport in contemporary society. Topics such as the social organization of sports, women and sports, sports and violence, inter-scholastic sports and achievement behav-

ior, discrimination and sports, and the future of sport are covered. Three hours each week.

SOC 205. (Anthropology 205) Human Societies (3) The comparative study of human society and culture with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamic of social process and cultural change are also introduced. Three hours each week.

SOC 215. Modern Social Problems (3) Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization. Three hours each week.

SOC 220. Sociology of Birth and Death (3) The examination of the sociological dimensions of "human entry and exit." The social organizational and cultural dimensions of birth and death will be considered in terms of rites of passage, bureaucratization, social movements, cultural differences, and historical and contemporary contexts. Three hours each week.

SOC 230. (Anthropology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are viewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

SOC 305. Population (3) Prerequisite: Sociology 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them. Three hours each week.

SOC 306. Methods of Social Research (3) Prerequisite: Sociology 105, Statistics 205. Introduction to the logic and methods of sociological research. Topics include the logic of social scientific inquiry; the relationship between theory and research; problem formulation; research design; conceptualization and measurement; operationalization; sampling; modes of observation; index and scale construction; introduction to analysis and interpretation of quantitative data; and ethics and politics of social research. Three hours each week.

SOC 306-51. Methods of Social Research Laboratory (1) Prerequisite: Sociology 105 and Statistics 205. Basic instruction in SPSS computer programming techniques and applications to social scientific data management and analysis. Two hours each week.

SOC 311. (Political Science 311) Techniques of Public Opinion Polling (3) Prequisite: Political Science 211 or consent of instructor. Basic skills in all phases of public opinion polling: issue focus; questionnaire construction; sample selection; interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills. Three hours each week.

SOC 315. Urban Sociology (3) Prequisite: Sociology 105. Analysis of the history and development, social organization, and problems of the city. Three hours each week.

SOC 316. Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

SOC 325. American Minority Relations (3) Prerequisite: Sociology 105. Analysis of the ascriptive bases of inequality in American society: race, ethnicity, religion and sex. Topics include sociocultural causes and consequences of prejudice and discrimination; institutionalized discrimination; and Europe immigration, ethnicity and assimilation. Three hours each week.

SOC 326. Collective Behavior and Social Movements (3) Prerequisite: Sociology 105. Analysis of social behavior that breaks from existing patterns and expectations, such as riots, crowds, revolution, and social movements. Three hours each week.

SOC 333. Sociology of Mental Illness (3) Prerequisite: Sociology 105. A sociological examination of the development and distribution of mental health and illness, particularly in the United States. Drawing from the works of relevant writers in the field, such as Scheff and Goffman, the course emphasizes the societal reaction approach to mental illness. Topics to be included are mental illness as deviance, the sociogenesis of mental disorder, and social stratification and mental illness. Three hours each week.

SOC 335. The Sociology of Deviant Behavior (3) Prerequisite: Sociology 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of non-sociological research and theories. Three hours each week.

SOC 336. Sociology of Aging (3) Prerequisite: Sociology 105. Introduction to sociological theories and methods used to explain the aging process. Topics include age stratification, adjustment to life events, housing patterns, health, and social policy. Three hours each week.

SOC 337. Medical Sociology (3) Prerequisite: Sociology 105. A sociocultural analysis of the general area of health and illness. Emphasis is given to understanding the distribution of health and illness in the United States and its impact on the patient status. The course includes a discussion of the organization and use of health care services from a sociological perspective. Three hours each week.

SOC 340. Organizations in Modern Society (3) Prerequisite: Sociology 105. An introduction to the dynamics of social life in large-scale organizations. Topics include organizational social psychology, organizational structure and process, and organization-community relations. Three hours each week.

SOC 344. The Sociology of Politics (3) Prerequisite: Sociology 105 or Political Science 101. Examines political institutions and political behavior from a sociological perspective. Topics include the social and economic origins of political behavior; the organization and distribution of political power and its effects on society, politics and social change. Three hours each week.

SOC 345. Sociology of the Family (3) Prerequisite: Sociology 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family: socialization, mate selection, procreation. Three hours each week.

SOC 346. Sociology of Religion (3) Prerequisite: Sociology 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and cultural and religious differentiation and institutionalization. Three hours each week.

SOC 347. Sociology of Education (3) Prerequisite: Sociology 105. An examination of the socio-cultural factors operating at various levels of the educational process, from classroom to school system to community, in light of the changing roles of the child and education in a complex industrial society. Three hours each week.

SOC 348. Sociology of Leisure and the Arts (3) Prerequisite: Sociology 105. This course surveys existing theory and research with respect to the concept of leisure. Specific attention is devoted to sociological analyses of trends, differentials, and time expenditures which population categories exhibit in recreational, sporting, and arts activities. Three hours each week.

SOC 350. Sex Roles in Society (3) Prerequisite: Sociology 105. The diifferentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change. Three hours each week.

SOC 355. Criminology (3) Prerequisite: Sociology 105. The nature, variation and causes of crime are studied as aspects of the American culture. Three hours each week.

SOC 360. Foundations of Social Thought (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research. Three hours each week.

SOC 365. Social Psychology (3) Prerequisite: Sociology 105. A sociological analysis of human social interaction. Topics include symbolic interaction, socialization, interpersonal relations. Focus is on social and cultural influences on individual and group behavior. Three hours each week.

SOC 366. Social Change (3) Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change, direction of change, mechanism of change, and planning of change. Three hours each week.

OC 375. Juvenile Delinquency (3) Prerequisite: Sociology 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society. Three hours each week.

OC 385. The Community (3) Prerequisite: Sociology 105. Structure, process and change in modern communities. Topics include analysis of the concept of community; the community as a social system; major community functions; relationships between the community and larger society; community stratification, power structure and organization. Three hours each week.

OC 386. Sociology of Work and Occupations (3) Prerequisite: Sociology 105 and three additional hours in Sociology or Economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure. Three hours each week.

OC 390. Social Structures (3) Prerequisite: Sociology 105. The course examines the concept of social structure as differentiated social positions and units and their interrelations, including bases of differentiation and integration. Examines patterns of a variety of social structures—the overall structure and patterned development of society, the structure of culture, the structure of deviance, the structure of interaction—considering consequences and interrelations. Three hours each week.

OC 406. Advanced Social Research Methods (3) Prerequisite: Sociology 306, 306-51. A study of the social survey research process: problem formulation, literature review, instrument development, sample determination, data collection, statistical analysis, and report writing. Requirements include individual research proposals and a class research project. Three hours each week.

OC 415. Power and Privilege (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination of social stratification as the system of distribution of privilege, power and prestige in modern and traditional societies. Discussion of major theories and theorists of stratification; the structure and process of systems of social inequality; the causes, correlates and consequences of socially structured inequality. Three hours each week.

OC 449. Sociology of Law (3) Prerequisite: Sociology 105 and junior/senior standing. An analysis of the role of law in society. Special emphasis will be given to the relationship between law and social organization and the relation of sociocultural changes to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivistic-individualistic process and as a reflection of sociocultural values. Three hours each week.

OC 460. Contemporary Sociological Thought (3) Prerequisite: Sociology 360. Coverage of the major contemporary theoretical approaches in sociology is provided. The development of structural-functionalism, positivism, Marxian thought, interactionism, ethnomethodology, and structuralism are analyzed in terms of the structure and purposes of theory. Three hours each week.

SOC 490. Senior Project (3-6) Prerequisite: Sociology 105, 306, 406 and senior status. A personal study of a segment of the community will be undertaken by each major. There will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting.

SOC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SOC 495. Topical Seminar (1-3) Prerequisite: Sociology 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

SOC 499. Honors Work in Sociology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 72.

SPANISH

(See Modern Languages)

SPEECH COMMUNICATION

(See Creative Arts)

CAMERON SCHOOL OF BUSINESS ADMINISTRATION

Norman R. Kaylor, *Dean*
Denis G. Carter, *Associate Dean*

The Cameron School of Business Administration of The University of North Carolina at Wilmington has planned its courses and curricula to be of use to the graduate in a position of responsibility as an owner of an independent business enterprise or as an employee at the decision making level in private business or in government and other non-profit organizations.

The primary function of the Cameron School of Business Administration is to teach students the basic body of knowledge they will need to enter a career in business or government and to promote the development of proficiency in practical application. The academic programs provide graduates with career opportunities in manufacturing and service organizations, marketing and sales, government, accounting firms, banks and other financial institutions. The graduate is also prepared to enter law school and graduate programs in public administration as well as for graduate study in accountancy, business administration, and economics. As complementary functions, through individual faculty efforts and the Center for Business and Economics Services, the Cameron School of Business Administration undertakes research in appropriate areas and provides related services to business and governmental units.

DEGREE PROGRAMS AND REQUIREMENTS

The B.S. degree is offered in five areas of concentration: **Accountancy, Business Management, Finance, Marketing,** and **Economics.** The B.A. degree with a concentration in Economics is offered for those students who want to study Economics in the liberal arts tradition.

Requirements for admission to the Cameron School of Business Administration are listed on page 68. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better, with the following courses completed at the time of application:

English 101-102, Mathematics 111 or 115, *Accounting 201, Economics 221.

During the semester of application each applicant must be enrolled in or have completed:

Mathematics 151 or 161, Economics 222, *Business 217, *Accounting 203 or 204.

*Students seeking a concentration in Accountancy should enroll in Accounting 204; all other B.S. degree candidates should enroll in Accounting 203. Students enrolling in the B.A. program in Economics are not required to complete Accounting 201, 203 or 204 and may substitute Statistics 205 or 215 for Business 217.

Students may qualify for the B.S. or B.A. degree by:

(1) successful completion of requirements as stated under Academic Regulations on page 63;
(2) successful completion of the courses designated for the degree program; and
(3) attaining a minimum grade point average of 2.0 on all courses attempted in the Cameron School of Business Administration.
(4) Students seeking the B.S. degree with a concentration in Accountancy must also earn a minimum grade point average on all accounting courses attempted in the Cameron School of Business Administration.
(5) The B.A. degree requires a minimum grade point average of 2.0 on all Economics courses attempted.

Electives are to be chosen by the student after consulting with the faculty advisor, with no more than 9 semester hours of free electives selected from courses in the Cameron School of Business Administration.

ACCOUNTANCY

Mr. Appleton, *Chairman.* Dr. Baker, Mr. Earney, Dr. Elikai, Dr. Kaylor, Dr. Marts, Mr. Roscher, Mrs. Sawyer, Ms. Sheffield, Mr. Zeko.

The B.S. degree with a concentration in Accountancy provides the student with the analytical foundation of the discipline of Accountancy. Included are the special tools and techniques of planning and control using financial and managerial accounting, income taxes, cost analysis, and systems.

Students establish qualifications for careers as professional certified public accountants, and in industrial, governmental, and other positions requiring managerial and analytical skills. The accounting concentration provides an excellent background for graduate and other professional education.

The elements of planning, administration, and control covered in the accounting courses are essential to all areas of business. Many of the courses offered benefit students concentrating in other fields by furnishing a comprehensive background of business procedures and financial relationships. Likewise, students concentrating in Accountancy find it advantageous to elect as many courses as possible in other areas of business, especially the quantitative fields.

A graduate of the Cameron School of Business Administration who has completed a concentration in Accountancy is permitted by the State Board of Accountancy of North Carolina to write the CPA examination. The student is also qualified by the Institute of Management Accounting to write the CMA examination.

Requirements for a concentration in Accountancy for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: Mathematics 111-151, Accounting 201, Economics 221-222, 324, Business 217, 311, 314, 350, 455, Finance 335, Marketing 340.

(b) Concentration Courses: Business 357, Accounting 204-303-304, 305, 404, 407, and two courses from the following: Accounting 307, 309, 405, and 406. Students planning to write the CPA examination are advised to elect Business 412 and additional accounting electives including Accounting 309, 402, and 405.

Accountancy Course Descriptions

(Department of Accountancy)

ACG 201. Financial Accounting (4) Prerequisite: Mathematics 111. An introduction to the basic framework of accounting for both students concentrating in accountancy and other disciplines. Includes preparation of financial records, working papers, and financial statements, and analysis of the major financial statements with emphasis on the underlying accounting concepts and constraints.

ACG 203. Managerial Accounting (3) Prerequisite: Accounting 201. An introduction to the concepts and techniques used by management to analyze and interpret accounting data in the organization. **Not open to students seeking a concentration in accountancy.**

ACG 204-303-304. Intermediate Accounting I, II, and III (3-3-3) Prerequisite: Accounting 201. Analysis of traditional financial accounting topics and theory.

Examines recent developments in accounting measurement and promulgations of the leading professional accounting organizations. ACG 204 emphasizes development of accounting standards and theory, financial statements, current assets and current liabilities. ACG 303 emphasizes plant assets, long-term investments, long-term liabilities, stockholders equity, revenue recognition and income tax allocation. ACG 304 emphasizes pensions and leases, changes in financial position, accounting for changing price levels, financial statement analysis, international operations, corporate liquidations and reorganizations, and segment and interim reporting.

ACG 305. Cost Accounting (3) Prerequisite: Accounting 201. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

ACG 307. Administrative Accounting and Control (3) Prerequisite: Accounting 203 or 305. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

ACG 309. Accounting for Business Combinations (3) Prerequisite: Accounting 303. A study of accounting problems in parent-subsidiary interrelationships, mergers and consolidations, partnerships, and non-profit accounting. Emphasis on consolidated financial statements.

ACG 402. Specialized Accounting Problems (3) Prerequisite: Accounting 304, 305, and 309. Advanced study of accounting practice and theory with emphasis on preparation for the CPA examination. Includes study of official pronouncements of the American Institute of Certified Public Accountants and the Financial Accounting Standards Board.

ACG 404. Federal Income Taxes I (3) Prerequisite: Accounting 201. Study of federal income taxation of individuals. Includes business expenses and revenues, depreciation, and property transactions and the history and development of taxation.

ACG 405. Federal Income Taxes II (3) Prerequisite: Accounting 404. The study of corporate, partnership, estate and trust taxation. Emphasis is on corporation and partnership organization, operations, distributions, liquidation and reorganization.

ACG 406. Non-Profit Organization Accounting (3) Prerequisite: Accounting 303. Accounting for not-for-profit organizations including governments, colleges and universities, hospitals, charities, and other not-for-profit organizations. Emphasis is on objectives and preparation of financial statements, the use of managerial reports, and budgetary data.

ACG 407. Auditing (3) Prerequisite: Accounting 304. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

ACG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ACG 498. Accounting Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of professional accounting skills required in the academic environment to the role of the practicing professional accountant. The participant will receive practical training and experience under the guidance of the accounting staff of a local business or government organization and a faculty supervisor. Open only to students concentrating in accountancy. Available internships will be filled on a competitive basis.

ACG 499. Honors Work in Accounting (2-3) Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS AND FINANCE

Dr. Hill, *Chairman.* Dr. Carter, Dr. Comeskey, Dr. Copley, Dr. Farrell, Dr. W. Hall, Mr. Harriss, Dr. Lawson, Dr. Morgan, Dr. Wadman, Dr. Walsh.

The Economics and Finance programs prepare students for careers which emphasize an understanding of the operation of the economy and the proper choice of policies by both government and business enterprises. The Economics concentrations represent a more general area of study, preparing the student to enter government service, industry, or to pursue a graduate program in economics, business, public administration or other social science disciplines.

The B.S. degree with a concentration in Economics is designed to provide orientation of the individual and the firm in economic society. The student is required to supplement the study of economics with a variety of business and accounting courses.

The B.S. degree with a concentration in Finance consists of three separate but related areas—business finance, investments, and financial institutions. The Finance curriculum prepares students for graduate study and for careers in corporate financial management, the investments and securities business, and the management of banking and nonbank financial institutions. The generalized applicability of finance and the basic tools of financial analysis are emphasized in the courses.

The B. A. degree with a concentration in Economics is designed for the student who wants to study Economics in the liberal arts tradition. The study of a wide variety of economics courses is supplemented by a study of history and the social sciences. Both degree programs develop an understanding of contemporary economic problems and institutions and provide a study of economic issues both in an historical setting and under conditions of change.

Requirements for a concentration in Economics for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: Mathematics 111-151, Accounting 201, Economics 221-222, 324, Business 217, 311, 313, 314, 350 455, Finance 335, Marketing 340.

(b) Concentration Courses:

(1) Students planning study in general economics must complete, in addition to the courses named in (a) above, Accounting 203, Economics 320, 321, 322, 328, 495, and two courses selected from the following, one of which must be numbered above 399: Economics 323, 325, 326, 329, 421, 422, 426, 427, and 428

(2) Students planning study in Economics with an emphasis on Finance must complete, in addition to the courses named in (a) above, Accounting 203, Economics 320, 321, 322, 495, Finance 330, 436, 437.

Requirements for a concentration in Finance for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: Mathematics 111-151, Accounting 201, Economics 221-222, 324, Business 217, 311, 313, 314, 350, 455, Finance 335, Marketing 340.

(b) Concentration Courses: In addition to the courses named in (a) above, students must complete Accounting 203, Business 357, Finance 330, 336, 436, 430 or 437, and two courses selected from the following: Finance 331, 332, 430, 431, 437, 495.

Requirements for a concentration in Economics for the B.A. degree:

(a) Core Requirements: In addition to basic studies requirements the following courses must be completed: Mathematics 111-151, Business 217 or Statistics 205 or Statistics 215, Economics 221-222, 321, 322, 324, 326 or 421, 328, 495, and six additional hours in Economics courses numbered above 299.

(b) In addition to the courses named in (a) above, the student must complete 21 semester hours from at least two of the following: Anthropology, Geography, History, Political Science, Psychology, Sociology. A minimum of six hours must be taken in at least two areas, and at least nine hours must be courses numbered above 299.

Economics Course Descriptions

(Department of Economics and Finance)

ECN 125. Survey of Economics (3) An introduction to economics principles for non-business and non-economics majors. Current analysis rather than theoretical analysis is utilized to present and show the relevance of economics principles.

ECN 221. Principles of Economics—Micro (3) Prerequisite: Mathematics 111. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

ECN 222. Principles of Economics—Macro (3) Prerequisite: Economics 221. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income and prices at an introductory level.

ECN 320. Managerial Economics (3) Prerequisite: Business 314. The theory and application of economics principles and methodology to the decision making process under conditions of uncertainty. Includes the following topics: demand theory and analysis; cost and production conditions facing the firm; forecasting; resource allocation and management of inputs; pricing, profit strategies, and market structure; and finance and investment decision making for the firm.

ECN 321. Intermediate Price Theory (3) Prerequisite: Mathematics 151 and Economics 222. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

ECN 322. National Income Analysis (3) Prerequisite: Economics 321. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and role of monetary and fiscal policy in the determination of such.

ECN 323. Business, Government and Society (3) Prerequisite: Economics 222. A broad study of the role of business enterprises in society and their relationships with government. Examines influence on decision making of changing social values, changing political, legal, and regulatory environments.

ECN 324. Money and Capital Markets (3) Prerequisite: Economics 222. An introduction to the financial and economic environment within which a firm must operate. Analysis of the sources and the cost and availability of funds in a domestic and international setting; analysis of international monetary flows; financial decision making in an integrated world economy.

ECN 325. (Environmental Studies 325) Environmental Economics (3) Prerequisite: Economics 125 or 221. Application of economics concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

ECN 326. Comparative Economic Systems (3) Prerequisite: Economics 125 or 222. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

ECN 327. Money and Banking (3) Prerequisite: Economics 222. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve System. An overview of banks and other financial institutions.

ECN 328. Public Finance (3) Prerequisite: Economics 222. Study of state, local, and federal government revenue and expenditures; theory of taxation, tax shifting and incidence; theory of public goods, fiscal neutrality and government regulation; methods of achieving efficiency in government beneift-cost analysis, program budgeting (PPB), and pricing of government services.

ECN 329. Industrial Organization (3) Prerequisite: Economics 222. A theoretical and empirical study of how the structure of industry affects the conduct and performance of the firm; covers government regulation, control and influence in business activity with respect to structure, conduct and performance.

ECN 421. History of Economic Thought (3) Prerequisite: Economics 222. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

ECN 422. Econometrics (3) Prerequisite: Business 217 or Statistics 362 and Economics 321. An introduction to the formalization of economic hypotheses into testable relationships and the application of appropriate statistical techniques. Theoretical aspects are covered, but primary emphasis is on computer application utilizing regression analysis.

ECN 426. International Trade and Finance (3) Prerequisite: Economics 222. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

CN 427. Labor Economics (3) Prerequisite: Economics 222. An analysis of the demand for and the supply of labor at the individual and the aggregate level; labor unions and collective bargaining.

CN 428. Regional Growth and Development (3) Prerequisite: Economics 222. Theories of subnational or regional economic growth. Measures of regional economic policies to alleviate problems resulting from disparate rates of regional economic growth.

CN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

CN 495. Senior Seminar in Economics (3) Prerequisite: Economics 322 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions and economic priorities require the use of new approaches to deal with current issues.

CN 498. Internship in Economics (1-3) Prerequisite: Senior status and consent of department chairman. Involves the application of economics concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a busines or not-for-profit organization and a faculty supervisor.

CN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Finance Course Descriptions

(Department of Economics and Finance)

IN 235. Personal Finance (3) Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings and investments. Recommended elective for non-business majors.

IN 330. Principles of Investments (3) Prerequisite: Accounting 201 or Economics 222. An introduction to alternative investments, with major emphasis on financial instruments. Practical descriptive material and relevant theoretical applications. Topics include stocks, bonds, options and REITs.

IN 331. Real Estate (3) Prerequisite: Accounting 201 and Economics 222. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

IN 332. Risk Management and Insurance (3) Prerequisite: Accounting 201 and Economics 222. An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

FIN 335. Business Finance (3) Prerequisite: Accounting 203 or 204 or 305 and Business 217 or Statistics 322 and Economics 222. An introduction to the finance function of business enterprise and to the analytical techniques used in making investment and financing decisions.

FIN 336. Capital Budgeting Analysis (3) Prerequisite: Finance 335. The study of the theory and practice of capital expenditure management including investment decisions and their impact on cash flows, business firm valuation, and the capital asset pricing model. Use of cases and financial analysis.

FIN 430. Investment Management (3) Prerequisite: Finance 330 and 335. An analytical approach to the valuation of stocks, bonds and options and the placement of those securities in Markowitz-efficient portfolios. Technical and fundamental analysis, market efficiency and valuation methods are examined. Both application and theory are emphasized.

FIN 431. Real Estate Investment Analysis (3) Prerequisite: Finance 335. The decision making process in real estate investment analysis including risk and return, financing alternatives, tax implications, and pricing and development alternatives.

FIN 436. Financial Management (3) Prerequisite: Finance 335. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized, including both working capital and fixed capital requirements.

FIN 437. Management of Financial Institutions (3) Prerequisite: Economics 324 and Finance 335. A case study course in the management of financial institutions with emphasis on commercial banks and savings and loan associations. Major emphasis on defining the functional areas within the institutions and the associated decision making process.

FIN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

FIN 495. Senior Seminar in Finance (3) Prerequisite: Finance 436 and senior standing. An examination of current problems in finance. Course content will vary as new techniques are developed to respond to a dynamic financial environment.

FIN 498. Internship in Finance (1-3) Prerequisite: Senior status and consent of department chairman. Involves the application of financial concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

FIN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

MANAGEMENT AND MARKETING

Dr. Adams, *Chairman*. Dr. A. Anderson, Dr. J. Anderson, Dr. Badarinathi, Mr. Burke, Mr. Davenport, Dr. Engdahl, Dr. Garris, Dr. Harper, Dr. Honeycutt, Ms. Honeycutt, Mr. Keating, Ms. Marshall, Dr. Nkansah, Dr. Sherman, Dr. Turner, Dr. West.

The Management and Marketing degree programs provide preparation for careers in oduct and service organizations. Each program of study is based on a broad educa- ɔnal foundation combined with courses in Accounting, Finance, Management, Mar- ting, and Economics. Both programs are also designed for students who wish to ırsue other professions in legal, governmental, and not-for-profit institutions.

Students are permitted some latitude in selecting courses and may choose to con- ntrate in Management or Marketing. Within the B.S. degree program with a concen- ıtion in Business Management, the student may elect an emphasis in business ınagement or a program of courses designed to meet the specific interest of the ıdent. Within the field of Management, the student selects from courses in human source management, organization behavior, small business management, and busi- ss information systems and should consider additional electives in computer science d the social sciences.

Requirements for a concentration in Business Management for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: Mathematics 111-151, Accounting 201, Economics 221-222, 324, Business 217, 311, 313, 314, 350, 455, Finance 335, Marketing 340.

(b) Concentration Courses:

(1) Students seeking a study of Business Management will complete, in addition to the courses named in (a) above, Accounting 203, Business 357, 358, 412, and four courses from the following: Business 310, 356, 416, 453, 454, 456, 495, Economics 320, Marketing 344, 448.

(2) Students seeking a study of Business Management in an area of particular interest, such as small business management or human resource management, will complete, in addition to the courses named in (a) above, Accounting 203, Business 357, 412, and 15 semester hours in the Cameron School of Business Administration in courses numbered above 299 (except 491 and 498) with prior approval of the department chairman.

Requirements for a concentration in Marketing for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: Mathematics 111-151, Accounting 201, Economics 221-222, 324, Business 217, 311, 313, 314, 350, 455, Finance 335, Marketing 340.

(b) Concentration Courses: In addition to the courses named in (a) above, the following courses must be completed: Accounting 203, Business 357, Marketing 341, 445, and four courses from the following: Marketing 344, 346, 347, 349, 442, 448, 495, Business 412.

Business Course Descriptions

(Department of Management and Marketing)

US 217. Statistical Analysis for Business and Economics (3) Prerequisite: Mathematics 111. Classification and presentation of business and economics data, statistical inference including estimation and hyphothesis testing procedures, Bayesian inference, correlation and regression analysis, expected value, time series, and index numbers.

US 310. Business Communications Skills (3) Prerequisite: English 102, Accounting 201, Economics 221. Fundamentals of business communications with em-

AT WILMINGTON

phasis on preparing formal business reports. Emphasis is on the communication processes in management, including primary and secondary research, business writing, and making oral presentations.

BUS 311. Legal Environment of Business (3) Prerequisite: Junior or senior standing. Study of the organization and role of business enterprises in society and their relationships in government. Examines how the legal environment is influenced by changing social and ethical values. Topics include agency, antitrust, forms of business organization, environmental regulation, equal opportunity, labor law, product liability, and property rights.

BUS 313. Computer Applications in Business (3) Prerequisite: Accounting 201. Introduction to information systems concepts and their application in the business environment. Utilization of spreadsheet, database, and graphics software in the analysis, structure and design of information systems.

BUS 314. Introduction to Management Science (3) Prerequisite: Mathematics 151, Business 217 or Statistics 322, Accounting 201 and Economics 222. Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, PERT/CPM, waiting lines, and simulation.

BUS 350. Organization Theory and Behavior (3) Prerequisite: Accounting 201 and junior standing. Study of theories, research and concepts underlying the structure and processes of complex organizations. Emphasis on problem solving issues and applications in organization design, leadership, motivation and interpersonal communications.

BUS 356. Human Resource Management (3) Prerequisite: Business 350. Evaluation of concepts and approaches used in human resource management and development. Study of manpower planning, selection procedures, performance review, compensation and benefits, equal employment/affirmative action factors, and labor relations. Emphasis is on how personnel specialists and operating managers can improve organizational performance.

BUS 357. Production Management (3) Prerequisite: Business 314 and Business 350. Introduction to the situations operating managers face in the production-operations area. Analysis of concepts, tools and techniques, including production planning and control, materials management, inventory control, and managing the labor force. Particular attention directed to the study of different types of production processes.

BUS 358. Organizational Behavior (3) Business 350. Application of behavioral science concepts in the management of organizations. Emphasis on increasing productivity on the individual, group, and organizational level. Particular attention directed to analyzing organizations, developing motivational programs, designing enriching jobs, leadership development, and managing organizational change.

BUS 412. Commercial Law (3) Prerequisite: Junior or senior standing. Study of the commercial legal environment in which business enterprises operate. Examines the law of contracts, sales and warranties, security interests, commercial paper, and debtor and creditor rights.

US 416. Business Information Systems (3) Prerequisite: Business 313 and Business 350. A study of basic systems concepts and information concepts and their application to the analysis, design, implementation and evaluation of computer-based business information systems.

US 453. Management of Small Business (3) Prerequisite: Business 311, Business 350, Marketing 340, Finance 335 and senior standing. Examination of the factors involved in managing an existing small business. Emphasis on tailoring the marketing mix to specific target markets, financial planning and control, and operational aspects of small business including supplier relations, taxation, and credit collection.

US 454. Entrepreneurship (3) Prerequisite: Business 453. Primary focus on starting a new business. Specific areas include identifying business opportunities, conducting feasibility studies, developing the business plan, evaluating alternative ways of financing new ventures, identifying the appropriate legal form of organization, and managing for tax planning. Purchasing an existing business and acquiring a franchise are also addressed.

US 455. Business Policy (3) Prerequisite: Business 311, 350, 357, Marketing 340, and Finance 335. Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is used.

US 456. Industrial Relations (3) Prerequisite: Business 356. Analysis of management techniques for the administration of labor agreements; study of collective bargaining and union-management relations; and evaluation of labor relations in union and non-union organizations. Case studies provide realistic experience for both private and public sector labor relations.

US 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

US 495. Senior Seminar (3) Prerequisite: Business 350 and senior standing. Special topics in management not regularly addressed in other management courses.

US 498. Internship in Management (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of management knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

US 499. Honors work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Marketing Course Descriptions

(Department of Management and Marketing)

MKT 340. Principles of Marketing (3) Prerequisite: Accounting 201 and Economics 221. Basic functions, institutions and problems involved in the distribution of goods and services. Emphasis is on integrating the managerial approach with the behavioral, institutional and environment factors.

MKT 341. Marketing Research (3) Prerequisite: Business 217 and Marketing 340. The development and utilization of marketing research techniques for decision making. Emphasis on specifying, obtaining, analyzing, interpreting, and reporting information in the marketing context. Particular attention directed toward Bayesian decision analysis, product research, estimating market potential, sampling, experimental survey, design and test marketing.

MKT 344. Distribution Management (3) Prerequisite: Marketing 340. An introduction to physical distribution from an institutional and managerial perspective. Study of channel structure, legal factors, performance measurement, inventory control, and trends in the channel environment. Emphasis on the design and management of a physical distribution system.

MKT 346. Retail Management (3) Prerequisite: Marketing 340. Examination of the principles and methods of retailing. Study of social, political, ethical, and economic environments. Emphasis on market segmentation, merchandising, and managerial control.

MKT 347. Promotion Management (3) Prerequisite: Marketing 340. Study and evaluation of the concepts and procedures useful in promoting an organization to its external publics. Emphasis on advertising and the mass media, including communication strategy, media use, budgeting, and public relations.

MKT 349. Consumer Behavior (3) Prerequisite: Marketing 340. Application of the principles and techniques of the behavioral sciences to marketing situations. Emphasis placed on how and why consumers behave and how to use this knowledge to develop effective marketing programs. Particular attention to attitude formation, family consumption, decision making, motivation research, and the influences of social status.

MKT 442. International Marketing (3) Prerequisite: Marketing 340. Focus is on the special framework in which international marketing is conducted. Influence of international institutions, culture, stage of economic development, geography and demography are covered. Emphasis on multinational marketing problems and opportunities in an ever changing world.

MKT 445. Marketing Management (3) Prerequisite: Business 350, Marketing 341 and senior standing. Concepts of demand analysis, formulating marketing strategy, establishing policies and procedures, coordinating marketing action, and evaluating performance.

MKT 448. Sales Management (3) Prerequisite: Business 350 and Marketing 340. Focus on developing and maintaining an effective sales organization. Emphasis on the role of the salesperson, motivating the sales force, and designing and implementing selling strategies.

MKT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MKT 495. Senior Seminar (3) Prerequisite: Marketing 340 and senior standing. Special topics in marketing not regularly addressed in other marketing courses.

KT 498. Internship in Marketing (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of marketing knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or a not-for-profit organization and a faculty supervisor.

KT 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

SCHOOL OF EDUCATION

Roy E. Harkin, *Dean*
Calvin L. Doss, *Assistant to the Dean*

The School of Education at The University of North Carolina at Wilmington offers programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle Grades Education, and Special Education and programs leading to secondary (9-12) and special subjects (K-12) teacher certification. In addition, graduate programs in Elementary Education, Reading Education, Special Education and Educational Administration and Supervision are offered.

Responsibility for the degree and certification programs within the School of Education is shared by the Department of Educational Design and Management and the Department of Curricular Studies.

Students wishing to pursue teacher preparation programs must be formally admitted to the School of Education and to the Teacher Education Program. Requirements for admission are:

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
2. Completion of EDN 200, Teacher, School, and Society, with a grade of "C" or better.
3. Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).
4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

EDUCATIONAL DESIGN AND MANAGEMENT

Dr. Ellis, *Chairman.* Dr. Applefield, Dr. Bryan, Dr. Doss, Dr. Earle, Dr. Harkin, Dr. A. Hayes, Dr. Hulon, Dr. Johnston, Dr. Mullendore, Dr. Wagoner.

The Department of Educational Design and Management provides basic professional education courses for the undergraduate programs in Elementary, Middle Grades, Secondary, and Special Education and is responsible for the program of study leading to the Master of Education degree in Educational Administration and Supervision.

The Master of Education program in Educational Administration and Supervision is described in the Graduate Studies section of this catalogue.

CURRICULAR STUDIES

Dr. H. Hayes, *Chairman.* Dr. Andrews, Dr. Bachner, Dr. Bartolome, Dr. Burton, Dr. Cleare, Dr. Jones, Dr. LaNunziata, Dr. Meyers, Dr. Stephens, Dr. Thomas, Dr. Wright.

The Department of Curricular Studies is responsible for the programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle Grades Education, and Special Education, the programs leading to secondary (9-12) and special subjects (K-12) teacher certification, as well as the programs leading to the Master of Education in Elementary Education, in Reading Education, and in Special Education.

Within the Bachelor of Arts degree program in Elementary Education, a student may concentrate in Early Childhood Education, which leads to North Carolina teacher certification to teach in kindergarten through grade four, or in Intermediate Education which leads to certification to teach in grades four through six.

The Bachelor of Arts program in Middle Grades Education leads to certification to each in grades six through nine.

The Special Education program prepares teachers to serve mildly handicapped children from kindergarten through grade twelve in public schools and in various other service agencies and leads to North Carolina teacher certification in at least one area of exceptionality: learning disabilities, and mental retardation.

Each degree program is designed to meet North Carolina State Board of Education guidelines for teacher certification and includes recommended courses in basic studies, professional education and collateral areas, and a content specialization. Adjustments in program requirements are made as guidelines change.

The Master of Education programs in Elementary Education, Reading Education, and Special Education are described in the graduate studies section of this catalogue.

DEGREE REQUIREMENTS FOR ELEMENTARY EDUCATION

Common Requirements for Early Childhood and Intermediate Education:

Basic Studies

Courses listed below are selected to meet North Carolina State Board of Education guidelines for elementary teacher certification. They only partially satisfy University basic studies requirements. To complete the University requirements, as listed on pages 69-71 of this catalog, additional courses in either the Humanities or Natural Science and Mathematics areas will be needed. However, these courses may be taken as part of the content specialization.

Basic Skills
- English Composition (six semester hours)
  - English 101
  - English 102
- Physical Education (two semester hours)
  - Physical Education 101
- Humanities (twelve semester hours)
  - Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
  - Communication 105
  - History, six semester hours from the following: History 101, 102, 201, 202
- Creative Arts, (six semester hours)
  - Art 201, 202, or 204, and Music 105 or 115
- Natural Science and Mathematics (ten semester hours)
  - Natural Sciences: one laboratory course from Biology, Chemistry, Geology, or Physics
  - Mathematics 141 and 142
- Social and Behavioral Sciences (six semester hours)
  - Political Science 101
  - Sociology/Anthropology 205

Collateral Requirements

ART 385	Art in the Elementary School
MUS 325	Music Education for Elementary Teachers
HEA 304	Health and Safety Education (K-9)
PHY 305	Science for Elementary Teachers
PED 386	Physical Education in the Primary Grades

Professional Core

PSY 216	Educational Psychology
PSY 220	Child Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Development I
EDN 202	Instructional Development II

Professional Semester

EDN 410	Seminar in Education (K-4, 4-6, 6-9, Special Education)
EDN 411	Practicum (K-4, 4-6, 6-9, Special Education)

Requirements for a concentration in Early Childhood Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations (K-9)
EDN 322	Teaching of Mathematics (K-4)
EDN 334	Social Studies Curriculum and Instruction (K-9)
EDN 336	The Teaching of Science (K-9)
EDN 344	Books and Materials for Early Childhood Education
EDN 348	The Communication Arts: Reading/Language Arts (K-4)

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listed below. Specialization in one of the four basic curriculum areas—Langauge Arts, Mathematics, Science, Social Studies—is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Art	Music
Health	Physical Education
Language Arts	Science
Mathematics	Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Professional Education Concentration. Students may repeat courses in which they earn a grade lower than "C" only with the permission of the Dean of the School of Education.

Requirements for a concentration in Intermediate Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations (K-9)
EDN 323	Teaching of Mathematics (4-9)
EDN 334	Social Studies Curriculum and Instruction (K-9)
EDN 336	The Teaching of Science (K-9)
EDN 351	Language Arts Methods for the Middle School (4-9)

Collateral Requirements

ART 385	Art in the Elementary School
MUS 325	Music Education for Elementary Teachers
HEA 304	Health and Safety Education (K-9)
PHY 305	Science for Elementary Teachers
ENG 380	Literature for Children
PED 387	Physical Education in the Intermediate Grades (4-6)

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listed below. Specialization in one of the four basic curriculum areas—Language Arts, Mathematics, Science, Social Studies—is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Art	Music
Health	Physical Education
Language Arts	Science
Mathematics	Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Professional Education Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR MIDDLE GRADES EDUCATION

Basic Studies

Basic studies courses specified below are selected to meet North Carolina State Board of Education guidelines for Middle Grades teacher certification. They only partially satisfy University basic studies requirements listed on pages 69-71 of this catalog. To complete University requirements, additional courses in Humanities or Natural Science and Mathematics will be needed. However, such courses may be taken as part of the content specialization.

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (12 semester hours)
- Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
- Communication 105
- History
  - Six semester hours from the following: History 101, 102, 201, 202

Creative Arts (three semester hours)
- One from Art 201, 202, or 204, or Music 105 or 115

Natural Science and Mathematics (10 semester hours)
Natural Sciences: one laboratory course from Biology, Chemistry, Geology, or Physics
Mathematics 141 and 142
Social and Behavioral Sciences (three semester hours)
Political Science 101

Collateral Requirements

Cultural Arts
Select six semester hours from the following: Art 201, 202, 204, 307, 385; Drama 130, 135, 136, 221, 225; Music 116, 117, 118, 361-62-63

Health and Physical Education
Health 304, Health and Safety Education (K-9)

Professional Core

PSY 221	Adolescent Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Program Development I
EDN 202	Instructional Program Development II

Professional Semester

EDN 410	Seminar in Education
EDN 411	Practicum

Requirements for a concentration in Middle Grades Education for the B.A. Degree:

Professional Education

EDN 318	The Middle School
EDN 250	Reading Foundations, (K-9)

Content Specialization

Two content area specializations must be selected, at least one of which must be from the four basic curriculum areas—Language Arts, Mathematics, Science, Social Studies. Specific course options and credit hour requirements are available from advisors or the department chairperson. A grade of "C" or better is required of all courses in the Professional Core and Professional Education concentration. Students may repeat courses in which they earned a grade of lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR SPECIAL EDUCATION

General Requirements in Special Education:

Basic Studies

English Composition (six semester hours)
English 101
English 102

Physical Education (two semester hours)
Physical Education 101

Humanities (12 semester hours)
History 101 or 102
History 201 or 202
Communication 105
English 110, 210, 211, or 212

Creative Arts (six semester hours)
Choose two courses from two different areas
Art 201, 202, or 204
Drama 221 or 225
Music 115

Natural and Mathematical Sciences (13 semester hours)
Natural Science
Choose 2 courses from 2 different science areas. One course must be a lab science.
Biology 105
Chemistry 103
Geography 130 or 230
Geology 101, 120, or 150
Physics 105

Mathematical Sciences
Mathematics 141 and 142

Social and Behavioral Sciences (six semester hours)
Choose two courses from two different areas.
Economics 125
Political Science 101
Sociology 105, Anthropology 105, or Geography 140

rofessional Core

EDN 200 Teacher, School, and Society
EDN 201 Instructional Program Development I
EDN 202 Instructional Program Development II
EDN 250 Reading Foundations (K-9)
EDN 322 Teaching of Mathematics (K-4)
or
Teaching of Mathematics (4-9), EDN 323
PSY 216 Educational Psychology
PSY 323 Life Span Human Development

Requirements for a concentration in Special Education for the B.A. Degree:

EDN 260 Introduction to Exceptional Children
EDN 364 Mental Retardation in School and Society
EDN 366 Learning Disabled Children and Adolescents
EDN 367 Behavior Management Techniques
EDN 368 Diagnostic Techniques in Special Education
EDN 369 Prescription Development in Special Education
EDN 370 Behaviorally Disordered Children and Youth
EDN 374 Special Education Curriculum and Instruction
EDN 410 Seminar
EDN 411 Practicum
PSY 322 Psychology of Exceptional Children

Content Specialization

Twelve semester hours, in addition to courses used to fulfill Basic Studies and Professional Core requirements, in one of the following areas:

Art
Music
Elementary Education
Physical Education
Psychology
Recreation
Sociology

A grade of "C" or better is required in all courses in the Professional Core and Special Education Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

Teacher Certification Program in Secondary and Special Subjects

Programs leading to teacher certification are offered in the secondary (9-12) fields of Biology, Chemistry, Geology, English, French, History, Mathematics, Physics, and Spanish, and in the special subject (K-12) fields of Health and Physical Education. Also, students who concentrate in History, Political Science or Sociology may fulfill subject matter requirements for Social Studies certification by completing a minimum of 21 semester hours in three Social Studies areas other than the discipline of major concentration.

Students who concentrate in Biology, Chemistry, Earth Science or Physics may fulfill requirements for Science certification by completing 21-23 semester hours in three science areas other than the discipline of major concentration. Students wishing to prepare themselves as secondary teachers are required to fulfill degree requirements in an appropriate academic discipline and to complete the following sequence of professional courses:

PSY 216	Educational Psychology
PSY 221	Adolescent Psychology
EDN 200	Teacher, School, and Society
EDN 201	Instructional Program Development I
EDN 356	Reading in the Secondary School
EDN 408	Instructional Methods
EDN 409	Practicum

Students must take all the professional courses listed above except EDN 408 and 409 and earn a grade of "C" or better before the student teaching semester. Students seeking secondary teacher certification must be formally admitted to the Teacher Education Program. Standards for admission are:

(1) Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
(2) Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.
(3) Completion of a minimum of 45 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).
(4) Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

Education Course Descriptions

EDN 200. Teacher, School, and Society (4) Introduction to profession of teaching that acquaints prospective teachers with diverse roles of teachers. Focuses on teacher as decision-maker; careers in education; social, historical and philosophical foundations of education; governmental and organizational aspects of schools; and current and future trends in American education. Observation skills are developed through field experience. Three hours of small group instruction,

one hour of large group instruction, and a minimum of one hour of off-campus observation each week.

EDN 201. Instructional Program Development I (3) Prerequisite: Education 200 or permission of department chairman. The first of a two-part sequence designed to provide the conceptual tools and analytic skills necessary to plan, implement, and evaluate instructional programs. This course will focus on the fundamental components of instructional development for teachers. Topics of study include instructional theory, types of learning, instructional objectives, planning strategies, task analysis, organization for instruction, and design of instructional systems. Three hours each week.

EDN 202. Instructional Program Development II (3) Prerequisite: Education 201. The second of a two-part sequence in instructional design, this course will develop further the specific skills in instructional development, critical analysis, and communication. Topics of study include selection and evaluation of instructional resources, design of feedback systems, measurement, and data organization and interpretation. Three hours each week.

EDN 250. Reading Foundations (K-9) (3) A foundations course for all elementary and special education majors. Emphasis on linguistic and psychological bases of the reading process, stages in the development of reading ability, and sequences of skill acquisition. Students will study models of reading instruction, the role of the classroom teacher of reading, and forces influencing that role. Three hours each week.

EDN 260. Introduction to Exceptional Children (3) Survey of major categories of exceptionalities including giftedness, mental retardation, hearing impairments, visual impairments, learning disabilities, communication disorders, emotional handicaps, and physical handicaps. Includes definitions, characteristics, etiology, psycho-social implications, and educational intervention of each exceptionality. Three hours each week.

EDN 310. School-Community Relations (3) Methods of improving school-community relations. Three hours each week.

EDN 311. Student Leadership in Higher Education (1) Develops an understanding of leadership theories and skills and their utilization in practical settings. Topics include: (a) realizing the impact of student leadership, (b) understanding leadership theories, (c) developing a leadership style, (d) improving leadership skills, (e) use of the situational leadership model, and (f) working with a variety of personality types. One hour each week.

EDN 318. The Middle School (3) An overview of the conceptual and historic development of the middle school. Major emphasis on exploring the educational implications of the developmental characteristics of middle grade learners. The multiple roles of the middle grades teacher, special needs of exceptional students, and organizational/management approaches will be stressed. Three hours each week.

EDN 319. Individualizing Instruction (3) Prerequisite: Education 201 and Psychology 216. This course will focus on strategies for meeting needs of individuals in the regular classroom. Students will study alternative methods for dealing

with pupil differences that have an impact on learning. Characteristics of children with academic, intellectual, social-emotional, physical, cultural and language differences will be examined. Three hours each week.

EDN 322. The Teaching of Mathematics, (K-4) (3) Prerequisite: Education 201 and six semester hours of appropriate mathematics. Study of methods and materials for the teaching of mathematics at the kindergarten through fourth grade level. Logical, psychological, and sociological considerations for the teaching of mathematics. Three hours each week.

EDN 323. The Teaching of Mathematics, (4-9) (3) Prerequisite: Education 201 and six semester hours of appropriate mathematics. Focus on materials and methods for teaching mathematics in grades 4-9. Logical, psychological and sociological considerations of the teaching of mathematics. Examination of curricula appropriate at the intermediate and middle school levels. Three hours each week.

EDN 324. Diagnostic Teaching of Mathematics (3) Understanding of psychological and environmental factors that affect learning of school mathematics. Focus on methods and materials appropriate to diagnosis and remediation of mathematics difficulties common at the 6-9 level. Awareness of strategies effective for enhancing self-confidence in mathematics learning. A field based activity is required. Three hours each week.

EDN 334. Social Studies Curriculum and Instruction (K-9) (3) Prerequisite: Education 201, and six hours of social studies content. An overview of curriculum content and various ways of organizing it will be emphasized. The implications of learner developmental characteristics for selecting approaches to instruction in social studies will be explored. Topic selections and sequencing of curriculum will be examined as will the connections between social studies and the social sciences. The course will examiine the places of concept learning, generalizations, and factual knowledge in social studies curriculum. Three hours each week.

EDN 335. Social Studies Education in the Middle Grades (3) Examines the specific ways in which social studies curriculum can be organized to meet the learning needs of middle grades students. Instructional strategies which emphasize problem solving, values investigation, identify bias and interpretation, and the relevance of social inquiry to the real world will be stressed. Three hours each week.

EDN 336. The Teaching of Science (K-9) (3) Prerequisite: Education 201, Physics 305, or two science laboratory courses. Designed for Elementary Education majors seeking certification at the K-9 level. Methods of teaching the biological and physical sciences. Applications of the sciences to classroom experimentation and investigation. Examination of contemporary curricula used at the elementary and middle school level. Three hours each week.

EDN 337. Inquiry–The Method of Science. Prerequisite: A course in science methods or the completion of 15 hours toward a concentration or major in science or permission of instructor. Assumes initial level competency in curriculum and methods of science. Focuses on conceptualization of and rationale for using inquiry method of teaching science. Provides opportunities to acquire and prac-

tice skills needed to utilize method and to guide scientific investigation at K-12 levels.

DN 344. Books and Materials for Early Childhood Education (3) The selection and evaluation of books written for children. Appraisal of illustrations and other instructional media for preschool and primary children, their functions and correlation with the early childhood curriculum will be studied. Three hours each week.

DN 348. The Communication Arts: Reading/Language Arts (K-4) (3) Prerequisite: Education 201 and 250. An understanding and appreciation of children's language capabilities at school entrance and patterns of language growth through early school years will be developed. Various approaches to school language instruction will be examined. Students will learn strategies and methods for promoting growth in speaking, listening and writing in primary classrooms. Building on the reading foundations course, students will learn how to teach children and how to integrate reading and language experience. They will have extensive opportunities to assess, teach, and evaluate all areas of children's language and reading development in actual public school classroom. Three hours each week.

DN 351. Language Arts Methods for the Middle School (4-9) (3) Prerequisite: Education 201 and 250. The status and process of reading/language growth of middle grade children will be studied. Building on the reading foundations course, students will learn how to extend basic reading skills and more specialized content reading skills. They will learn how to foster development of speaking, listening and writing skills as well as children's understanding of the structure and conventions of their language. Students will teach a variety of supervised lessons using an integrated reading/language arts approach as well as individualized instruction model. Three hours each week.

DN 355. Developing Reading Competence in the Middle School (3) Prerequisite: Education 202, and Psychology 221 or Education 318. Presents background and methodology for fostering and evaluating reading abilities of intermediate and middle school level students, both in language arts classes and in other subjects. Topics include comprehension and study skills needed for reading to learn in all areas of the curriculum, organizational and managerial strategies for reading instructionin grades 4-9, and techniques for motivating reluctant readers. Field experiences required. Three hours each week.

DN 356. Reading in the Secondary School (3) Prerequisite: Education 201. Required course in the teaching of reading for secondary majors. Basic instructional reading strategies are developed, with emphasis on introducing assignments, improving study skills, and fostering critical thinking. Students identify and learn to teach reading skills specific to varying content areas. Adjusting instruction to students' reading capabilities is stressed. Three hours each week.

DN 364. Mental Retardation in School and Society (3) Examination of field of mental retardation from an educational perspective. Study of etiology, definitions, characteristics, and historical and current approaches to the education of the mentally retarded. Includes study of all levels of severity of mental retardation. Three hours each week.

EDN 366. Learning Disabled Children and Adolescents (3) Examination of the field of learning disabilities. Emphasis on the concept of learning disabilities, etiology, diagnosis, characteristics, teaching strategies, theory, historical influences, and current trends. Three hours each week.

EDN 367. Behavior Management Techniques (3) Prerequisite: Education 200 or 201 or consent of instructor. Designed to develop an understanding of the principles of behavior and their application in planning and implementing various behavior management strategies. Focus will be on observation and measurement of social behavior management techniques in the special education and regular education classroom.

EDN 368. Diagnostic Techniques in Special Education (3) Prerequisite: Education 201 and one of the following: Education 260, 364, or 366. Examination of concept and fundamentals of educational assessment. Includes examination of formal and informal diagnostic techniques appropriate for mildly handicapped children. Includes assessment of intellectual functioning, reading, mathematics, written expressions, spoken language, perception, and social-emotional skills. Three hours each week.

EDN 369. Prescription Development in Special Education (3) Prerequisite: Education 201 and 368. Development of skill in planning educational programs for exceptional children. Includes writing instructional objectives, selecting appropriate materials and techniques, writing lesson plans, and formulating individual educational programs. Three hours each week.

EDN 370. Behaviorally Disordered Children and Youth (3) Prerequisite: Education 200 and 201 or consent of the instructor. Designed to examine the wide and complex variety of learners labeled as "behaviorally disordered" or "emotionally disturbed". Topics related to historical, theoretical, etiological, developmental, and symptomological issues plus diagnosis, identification and major teaching strategies will be introduced. Program and parent involvement models and current trends and issues will be reviewed. Three hours each week.

EDN 371. Programming and Interventions for Behavioral Disordered Students (3) Prerequisite: Education 370 and Education 367. Examination of problems, issues and practices in developing programs for and educating students with behavioral disorders. Emphasis on assessment strategies, academic and social needs, major interventions, family involvement, scheduling issues, applied behavior analysis, systematic/directive teaching, and service delivery options. Legal considerations, consultation strategies and curriculum issues will be reviewed.

EDN 372. Programming and Interventions for Learning Disabled Students. (3) Prerequisite: Education 366. Study of the characteristics of learning disabled students and their educational implications. Emphasis on service delivery options, needs of LD individuals relevant for instruction, medical interventions, behavioral interventions, family involvement, pre-school programming, secondary programming, remediation strategies, and compensation strategies.

EDN 373. Programming and Interventions for Mentally Handicapped Students (3) Prerequisite: Education 364 or Education 260. Study of the characteristics of persons with mental retardation and the implications of these characteristics for programming. Emphasis will be on programs in school, community, and insti-

tutional settings. Needs of persons with mental retardation during the preschool, school, and postschool years will be studied.

DN 374. Special Education Curriculum and Instruction. (3) Prerequisite: Education 250, Education 322/323, Education 260 and at least one of the following: Education 364, 366, 370. Study of the curriculum areas and instructional techniques utilized in educational settings for learning disabled, mentally retarded, and behaviorally/emotionally handicapped students. Emphasis on curriculum development processes, design of lesson and unit plans, selection of materials, identification of instructional procedures, data-based decision making, and consultation with other educators of exceptional learners.

DN 404. Basic Philosophies of Education (3) Philosophies of education and their influence on the curriculum. Three hours each week.

DN 407. Teaching Practices and Techniques (3) Development of techniques of teaching: successful practices in teaching. Three hours each week.

DN 408. Instructional Methods (6) Corequisite: Education 409. Prerequisite: Education 200, 201, (or departmentally approved equivalents) and 356; Psychology 216 and 220 or 221 as appropriate and permission of the School of Education. Intensive examination of instructional methods in the student's area of specialization. Activities will be related to the student's practicum assignment, and emphasis will be placed on the development of instructional plans to be implemented in the practicum setting. Areas of specialization: English; French; Health; Mathematics; Physical Education; Science; Social Studies; Spanish.

DN 409. Practicum (9) Corequisite: Education 408. Prerequisite: As specified for Education 408. Students will be assigned full-time to practicum sites within their areas of specializations. During the course, students will engage in a variety of supervised instructional activities, assuming increasingly wider responsibility for class instruction. Practica are offered in the areas of specialization listed above under Education 408.

DN 410. Seminar in Education (K-4; 4-6; 6-9, Special Education) (3) Corequisite: Education 411. Prerequisite: All courses in the professional core and those professional courses appropriate for the concentration for K-9 majors and Special Education majors. Designed as a culmination of professional study and an initiation into student teaching and the teaching profession. Provides opportunities to extend and apply understandings of the roles of the teacher as a decision-maker, particularly in the areas of planning, instruction, management, and evaluation.

DN 411. Practicum (K-4; 4-6; 6-9, Special Education) (12) Corequisite: Education 410. Prerequisite: As specified for Education 410. A full time practicum experience within the area of specialization. Students will engage in a variety of supervised instructional activities, assuming an increasing amount of responsibility for all phases of classroom instruction. Practica are offered in the areas of Early Childhood Education (K-4), Intermediate Education (4-6), Middle Grades Education (6-9), and Special Education.

DN 412. Extended Practicum (3-6) Prerequisite: Appropriate curriculum and instruction courses and permission of the chairperson of the Department of Curricular Studies. A part-time practicum experience within the appropriate area

of certification. Students will engage in supervised instructional activities that extend their understandings and teaching performance to an additional area of preparation. Areas of specialization include elementary, middle grades, special education, and secondary education.

EDN 415. Education Media Design and Production (3) This course will provide students with an understanding of the design principles underlying the production of instructional materials and with the necessary production techniques. Emphasis will be placed upon the production of materials and their effective integration into an instructional unit. Students will design, produce, and evaluate a number of projects using techniques common to media programs in public schools and the authors who have made contributions to this field. Three hours each week.

EDN 416. Instructional Applications of Computers (3) Prerequisite Education 201. Designed to develop skills in using computers as tools in instruction and to make judgments about instructional materials designed for use on computers. Topics include: (a) introduction to computing systems, (b) introduction to microcomputer programming languages, (c) authoring languages, (d) judging instructional "software", (e) using computers to manage classroom records, (f) using computers in instruction, and (g) teleprocessing and automated data bases. Activities will include group lectures, demonstrations, and discussions, projects in software designed for classroom management and instruction. The major focus is on microcomputer application. Three hours each week.

EDN 430. Preschool Curriculum (3) Prerequisite: Education 201. Provides students the understandings, skills and abilities necessary to implement an effective preschool program. Emphasis placed on knowledge of the curriculum content and the effective combinations and correlations of these contents for a preschool program. Activities include lectures, discussions, demonstration, individual, and group projects. Three hours each week.

EDN 431. Teaching in the Primary Grades (3) Designed to develop a broad overall view of teaching in the primary grades. The course includes examination of the history, current "state of the art" and possible future of primary education. Focus is on the application of knowledge of child development and learning theories in organizing and implementing the primary school curriculum in an integrated and interdisciplinary fashion. Study of classroom organization and management for effective teaching in the primary grades will be undertaken. Three hours each week.

EDN 432. Interdisciplinary Curriculum and Instruction (3) Examines principles of interdisciplinary curriculum and instruction and explores its appropriateness for middle grades and intermediate students. Alternative approaches to designing interdisciplinary curriculum and instruction such as thematic units and exploratory and interest-based study will be examined. Emphasizes the possible linkages among the disciplines, focusing on thinking and communication skills, concept and problem solving learning, as well as values clarification/resolution. Three hours each week.

EDN 446. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of materials published for classroom use

in the public schools and the authors who have made contributions to the field. Three hours each week.

EDN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

EDN 495. Selected Topics in Education (1-3) Prerequisite: Junior or senior standing. Selected topics in education of varying duration and credit. May be repeated for a maximum of 6 semester hours.

EDN 499. Honors Work in Education (2-3) Prerequisite: Senior standing. Independent study for honors students.

For trial course offerings designated 292 and 492, see explanation on p. 72.

SCHOOL OF NURSING

Marlene M. Rosenkoetter, *Dean*

Bachelor of Science Degree

Ms. Gilliland, Dr. Gray, Ms. Liebermann, Ms. Lowe, Ms. Majette, Ms. Payne, Ms. Pittman, Ms. Stone.

The School of Nursing at The University of North Carolina at Wilmington offers a program leading to the Bachelor of Science degree with a concentration in professional nursing. The purpose of this baccalaureate program is to prepare a generalist who possesses the knowledge, skills, and attitudes with which to practice family-centered professional nursing in a variety of current and emerging health care delivery systems. In addition, the program is designed to provide a foundation for graduate nursing education. Through interactions with clients—individual persons, families and communities—and other health care professionals, nursing graduates will contribute toward meeting the wide-ranging needs of the region, state, and the larger community.

Program Objectives

The graduate of The University of North Carolina at Wilmington baccalaureate program in nursing is able to:

(1) Practice family-centered professional nursing based upon a conceptual framework in a variety of settings.

(2) Interact with individuals, families, and communities to promote an environment conducive to health.

(3) Utilize the nursing process in the delivery of health care to individuals, families, and communities.

(4) Base professional practice upon a synthesis of knowledge from social, behavioral, and natural sciences, nursing theory and research.

(5) Demonstrate commitment and accountability to health care consumers and to professional standards.

(6) Function as a self-directed learner who assumes responsibility for continued personal and professional growth.

(7) Assume a leadership role in the provision and coordination of health care through collaborative relationships with other health care professionals.

(8) Influence present and emerging roles of nursing practice to meet the health care needs of a changing society.

(9) Stimulate change within clients and health care delivery systems to more effectively promote the health of the community.

Degree Requirements for Bachelor of Science Degree
Concentration in Nursing
SAMPLE SCHEDULE
FIRST YEAR

Fall Semester

			Hours
ENG	101	English Composition	3
PED	101	Found. of Physical Activity	2
PSY	105	General Psychology	3
MAT	111	Precalculus Mathematics	3
CHM	115	Fund. of General Chemistry	4
TOTAL			15

Spring Semester

			Hours
ENG	102	English Composition	3
SOC	105	Intro. to Sociology	3
CHM	215	Organic/Biologic Chemistry	4
Humanities Electives			6
TOTAL			16

SECOND YEAR

Fall Semester

			Hours
BIO	240	Human Anatomy & Physiology	4
PSY	323	Lifespan Human Development	3
Creative Arts Elective			3
Humanities Elective			3
Free Elective			3
TOTAL			16

Spring Semester

			Hours
BIO	241	Human Anatomy & Physiology	4
BIO	246	Microbiology of Human Diseases	4
SOC	345	Sociology of the Family	3
+NSG	115	Intro. to Contemporary Nursing*	1
Humanities or Creative Arts Electives**			3
TOTAL			15

Summer Session I

NSG	200	Intro. to Nursing Assess/Int. I	2
NSG	200-51	Intro. to Nursing Assess/Int. I Laboratory	1
TOTAL			3

Summer Session II

NSG	250	Intro. to Nursing Assess/Int. II	2
NSG	250-51	Intro. to Nursing Assess/Int. II Laboratory	1
TOTAL			3

* **Can be taken concurrently with NSG 200 (transfer students)**

** **12 hours Humanities and 3 hours Creative Arts, or 9 hours Humanities and 6 hours Creative Arts.**

\+ **A minimum grade of "C" is required in each nursing course.**

THIRD YEAR

Fall Semester	Hours	Spring Semester	Hours
NSG 300 Nursing Process I	5	NSG 350 Nursing Process II	5
NSG 300-51 Nursing Process I Laboratory	3	NSG 350-51 Nursing Process II Laboratory	3
NSG 310 Interactions in Nursing Prac. I	3	NSG 360 Interactions in Nursing Prac. II	3
NSG 315 Nature of Man & Health in Modern Society	3	STT 210 Intro. to Statistics with Applications in Health Sciences	3
Free Elective (or senior year)	(3)		
TOTAL	14-17	TOTAL	14

FOURTH YEAR

Fall Semester	Hours	Spring Semester	Hours
NSG 400 Nursing Process III	4	NSG 450 Nursing Process IV	5
NSG 400-51 Nursing Process III Laboratory	3	NSG 450-51 Nursing Process IV Laboratory	3
NSG 410 Interactions in Nursing Practice III	3	NSG 460 Interactions in Nursing Practice IV	3
NSG 415 Research in Nursing	3	NSG 490 Advanced Nursing Practicum	1
TOTAL	13	Free Elective (or junior year)	(3)
		TOTAL	12-15

TOTAL HOURS: 57 hours - Concentration in Nursing (46%)
67 hours - Basic Studies and Collateral (54%)

Admission to the School of Nursing is dependent on University admission, approval of the committee for student affairs of the School of Nursing, and meeting admission criteria, including the completion of required prerequisite courses.

Time Limits: Nursing courses must be completed within a consecutive six calendar year period of time.

Ten-Year Rule: Non-nursing courses which are more than ten years old will be evaluated by the School of Nursing faculty for currency and credit.

RN ACCESS Program For Registered Nurses

Prerequisite Courses	Hours	
ENG 101 English Composition	3	
ENG 102 English Composition	3	
MAT 111 Precalculus Mathematics	3	
PED 101 Fundamentals of Physical Activity	2	
CHM 115 Fundamentals of General Chemistry	4	
CHM 215 Organic/Biologic Chemistry	4	
BIO 240 Human Anatomy and Physiology	4	
BIO 241 Human Anatomy and Physiology	4	
BIO 246 Microbiology of Human Diseases	4	
PSY 105 General Psychology	3	
PSY 323 Lifespan Human Development	3	
SOC 105 Introduction to Sociology	3	
SOC 345 Sociology of the Family	3	
STT 210 Intro. to Statistics with Application in the Health Sciences*	3	
Humanities Electives	9	
Creative Arts Electives	3	
Humanities or Creative Arts Electives	3	
Free Electives*	6	
TOTAL PREREQUISITE CREDITS	67	(54%)

* STT 210 and one three-credit free elective may be taken concurrently with nursing courses.

Degree Requirements for Bachelor of Science Degree

Concentration in Nursing

RN ACCESS Program

SAMPLE SCHEDULE*

Summer Session I		Hours	Summer Session II		Hours
NSG 219	Interactions in Contemporary Nursing I	3	NSG 250	Introduction to Nursing Assessment and Interven. II	2
	TOTAL	3	NSG 250-51	Intro. to Nursing Assessment and Interven. II Lab	1
				TOTAL	3

Fall Semester			Hours	Spring Semester			Hours
NSG	379	Interactions in Contemporary Nursing II	1	NSG	450	Nursing Process IV	5
NSG	389	Nursing Process in Contemporary Nursing	3	NSG	450-51	Nursing Process IV Lab	3
NSG	389-51	Nursing Process in Contemporary Nursing Lab	3	NSG	460	Interactions in Nursing Practice IV	3
NSG	410	Interactions in Nursing Practice III	3	NSG	490	Advanced Nursing Practicum	1
NSG	415	Research in Nursing	3				
		TOTAL	13			TOTAL	12

Credit by Placement	26
Nursing Concentration Credits	31
Total Nursing Hours	57 (46%)

* NOTES

1. Courses numbered above 400 are taken with students in the generic baccalaureate program.

2. Registered nurses admitted to the RN ACCESS Program of the UNC-Wilmington School of Nursing are required to verify their previous nursing education and experience by achieving a satisfactory score on the National League for Nursing Mobility Profile II tests and a clinical verification examination. Schedules for test dates are available in the office of the Director, RN ACCESS Program. The Nursing Mobility Profile II consists of three tests:

a. Care of the Adult Client
b. Care of the Client during Childbearing/Care of the Child
c. Care of the Client with Mental Disorder

A fee is charged for these tests.

A total of 26 semester hours of placement credit will be awarded to registered nurses upon satisfactory completion of all examinations.

3. Additional information can be obtained from the Director, RN ACCESS Program, UNC-Wilmington, School of Nursing (919) 395-3723.

BACHELOR OF SCIENCE DEGREE

Nursing Course Descriptions

NSG 115. Introduction to Contemporary Nursing (1) Prerequisite: Sophomore status. Open to non-nursing majors with consent of instructor. An overview of the historical development of nursing with discussion of significant persons, issues and events. Nursing education alternatives, various roles of professional nurses in contemporary practice, basic legal ethical issues, and criteria which differ-

entiate professional practice are described. Introduces the conceptual framework of the UNCW baccalaureate nursing program. One hour each week.

NSG 200. Introduction to Nursing Assessment and Intervention I (2) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200-51. An introduction to concepts and techniques of professional nursing practice. Includes concepts of nursing process, role, health, illness, communication, self-awareness, growth and development, responsibility and accountability, change, needs, client teaching, leadership, prevention, and nursing research. Selected basic nursing techniques associated with these concepts are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSG 200-51. Introduction to Nursing Assessment and Intervention I Laboratory (1) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200. Provides the opportunity for clinical application of the introductory concepts and techniques of professional nursing practices which are taught in Nursing 200. Students apply these concepts with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 250. Introduction to Nursing Assessment and Interventions II (2) Prerequisite: Nursing 200, 200-51 or Nursing 219. Corequisite: Nursing 250-51. An introduction to the concepts and techniques of health assessment including interviewing and history-taking, developmental assessment, psychosocial assessment, and physical assessment. Nursing process provides the major framework for focusing on assessment of individual adults and identifying opportunities for primary prevention. Assessment techniques are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSG 250-51. Introduction to Nursing Assessment and Interventions II Laboratory (1) Prerequisite: Nursing 200, 200-51 or Nursing 219. Corequisite: Nursing 250. Provides the opportunity for clinical application of introductory concepts and techniques of health assessment which are taught in Nursing 250. Assessments are performed with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 300. Nursing Process I (5) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300-51. Focuses on utilization of the nursing process with families, incorporating communication patterns, family development and the professional nurse's role in primary prevention with families. Basic research findings are incorporated and additional nursing techniques are acquired. Beginning concepts of secondary prevention are introduced. Five hours each week.

NSG 300-51. Nursing Process I Laboratory (3) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300. Provides the opportunity for clinical application of the concepts and techniques which are taught in Nursing 300. The nursing process is utilized with families in all phases of the life cycle, focusing on primary prevention. Selected secondary prevention related to screening in healthy populations is implemented. Twelve hours clinical laboratory each week.

NSG 310. Interactions in Nursing Practice I (3) Prerequisite: Nursing 250, 250-51. Prerequisite or Corequisite: Nursing 300, 300-51. Emphasizes elements of the

teaching-learning process and related principles of change, decision-making, communication and assertiveness. Selected literature is reviewed, as a teaching project is implemented with a designated family. Three hours each week.

NSG 315. Nature of Man and Health in Modern Society (3) Prerequisite: Nursing 115, 250, 250-51. Establishes a foundation for the professional nursing role through an examination of selected historical events, legal and ethical frameworks for practice, standards for nursing, key issues in health care, current issues in nursing, nursing theories, and models of nursing care delivery. Three hours each week.

NSG 350. Nursing Process II (5) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350-51. Focuses on utilization of the nursing process with families who have a member in an acute care setting. A foundation is developed for secondary prevention, including pathophysiology, psychopathology, relevant theories and research, and nursing roles and functions. Additional nursing techniques needed for secondary prevention are required. Five hours each week.

NSG 350-51. Nursing Process II Laboratory (3) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350. Provides the opportunity for clinical application of the concepts and techniques taught in Nursing 350. The nursing process is utilized with families who have a member in an acute care setting, focusing on secondary prevention. Twelve hours clinical laboratory each week.

NSG 360. Interactions in Nursing Practice II (3) Prerequisite: Nursing 310, 315. Corequisite: Nursing 350, 350-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership, and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. Teaching-learning principles are applied with a group of clients. Three hours each week.

NSG 400. Nursing Process III (4) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400-51. Focuses on utilization of the nursing process with families who have a member in a critical care setting and development of a framework for more advanced secondary prevention. Beginning concepts of tertiary prevention are introduced and additional nursing techniques pertaining to advanced secondary prevention are acquired. Four hours each week.

NSG 400-51. Nursing Process III Laboratory (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400. Provides the opportunity for clinical application of the advanced secondary prevention concepts and techniques which are taught in Nursing 400. The nursing process is utilized with families who have a member experiencing a life-threatening illness or crisis. Twelve hours clinical laboratory each week.

NSG 410. Interactions in Nursing Practice III (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400, 400-51. Prerequisite or Corequisite: Nursing 379, 389,389-51. Emphasizes elements of community assessment and related principles of epidemiology, health planning, social and political change, environmental management, and levels of prevention. Community resources and data sources are incorporated into the implementation of an assessment for a selected community. Three hours each week.

NSG 415. Research in Nursing (3) Prerequisite: Statistics 210, Nursing 350, 350-51, 360. Prerequisite or Corequisite Nursing 379, 389, 389-51. Examines research process as applied to nursing. Research terminology, methodology, and applicability of research findings for clinical practice are emphasized. Computer uses and ethical decision-making are incorporated. Principles of research are applied in developing a preliminary proposal for a nursing research project of limited scope.

NSG 450. Nursing Process IV (5) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450-51, 460. Focuses on the utilization of the nursing process with individuals, families, and groups who have and groups who have complex health needs. A conceptual framework for clinical practice based on related beliefs, theories, and research is developed, and provides the foundation for the role of the nurse in tertiary prevention. Five hours each week.

NSG 450-51. Nursing Process IV Laboratory (3) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450, 460. Provides the opportunity for the clinical application of concepts and techniques taught in Nursing 450 and Nursing 460. The nursing process is utilized with individuals, families, and groups who have complex health needs, and the student assumes responsibility for coordinating or directing the care of a group of clients. Twelve hours clinical laboratory each week.

NSG 460. Interaction in Nursing Practice IV (3) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450, 450-51. A seminar focusing on nursing leadership and management for the professional nurse. Included are: related concepts and theories of organization, change, power and authority, and role development; models of nursing care delivery; legal ramifications of delegation; models of quality assurance; computer applications in nursing management; and transitional issues for the graduate. Three hours each week.

NSG 490. Advanced Nursing Practicum (1) Prerequisite: Nursing 400, 400-51, 410, 415 or Nursing 389, 389-51, 410, 415. Provides the opportunity for clinical application of the nursing process to a selected area of nursing practice as the student integrates the concepts of research, prevention, and change into a clinical project. Emphasis on further development of nursing skills, knowledge and leadership, and establishing collegial relationships. Four hours clinical practicum each week.

NSG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing; consent of instructor; Nursing 300, 300-51 or Nursing 389, 389-51.

NSG 499. Honors Work in Nursing (2-3) Prerequisite: Eligibility for honors program; Nursing 300, 300-51 or Nursing 389, 389-51. Individual study for honors students.

Courses for Registered Nurses Only

NSG 219. Interactions in Contemporary Nursing I (3) Prerequisite: Admission to the RN ACCESS Program in the School of Nursing. An overview of fundamental concepts for professional nursing practice. Emphasizes nursing process, health,

illness, communication, responsibility and accountability, leadership, prevention, change, decision-making and research in professional nursing practice. Introduces nursing theories and the conceptual framework of the UNCW baccalaureate Nursing Program. A teaching project is implemented with an individual client. Ten lecture hours per week (summer session).

NSG 379. Interactions in Contemporary Nursing II (1) Prerequisites: Nursing 219, 250 and 250-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. One hour each week.

NSG 389. Nursing Process in Contemporary Nursing (3) Prerequisites: Nursing 219, 250, and 250-51. Corequisite: Nursing 389-51. Focuses on utilization of the nursing process with families in all phases of the life cycle. Incorporates communication patterns, family development and prevention. A clinical framework is developed from relevant theories and research. Nursing roles of career provider, coordinator, client teacher and advocate are explored. Responsibility and accountability for interactions with families are emphasized as the need for change within family and health care deliverysystems is identified. Three hours each week.

NSG 389-51. Nursing Process in Contemporary Nursing Laboratory (3) Prerequisite: Nursing 219, 250, 250-51. Corequisite: Nursing 389. Provides the opportunity for clinical application of concepts and techniques taught in Nursing 389. The nursing process is utilized with families during all phases of the life cycle in community and acute care setting. Twelve hours clinical laboratory each week.

PROFESSIONAL PROGRAMS

MEDICAL TECHNOLOGY

Advisor: Mrs. Kendrick

UNCW students interested in Medical Technology have two programs of study from which to choose.

1. A five-year program which includes earning a Bachelor's degree with a major in either Biology or Chemistry and completion of an additional year of training at an accredited hospital.

*2. A four-year program leading to a Bachelor of Science degree with a concentration in Medical Technology. The first six semesters (90 semester hours) of this program are completed on campus with the final year (12 months) spent in training at an affiliated hospital. The affiliated hospitals are:

Bowman Gray School of Medicine/North Carolina Baptist Hospital, Winston-Salem, N.C.
Charlotte Memorial Hospital, Charlotte, N.C.
Forsyth Memorial Hospital, Winston-Salem, N.C.
Mercy Hospital, Charlotte, N.C.
New Hanover Memorial Hospital, Wilmington, N.C.
Presbyterian Hospital, Charlotte, N.C.

Upon successful completion of this four-year program, the student will receive the Bachelor of Science degree with a concentration in Medical Technology.

Completion of the first years of study at UNCW does not assure the student admission to the year of clinical training at a hospital. There is competition for the limited space available; therefore, application to the preferred hospital should be made early in the fall of the last year at UNCW. Such application is the responsibility of the student. Guidance by the faculty advisor should be sought, since entrance requirements may differ at various hospitals.

As a part of the admission process, some hospital facilities require that applicants take the Allied Health Professions Test. This test is given at specified institutions each year. See the advisor about time and place.

***Students majoring in Medical Technology must file and pay for graduation during the first semester of the junior year. This application is filed in the office of the Registrar.**

The curriculum prescribed during the first three years at UNCW includes the following:

1. Basic Studies requirements—45 semester hours.
2. Requirements for a concentration in Medical Technology for the BSMT degree:

BIO 108 Introduction to Medical Technology (1)
BIO 205 Introductory Biology: Plants (4)
BIO 206 Introductory Biology: Animals (4)
BIO 207 Introductory Biology: Cells (3)
BIO 341 Clinical Calculations (1)
BIO 345 Animal Physiology (4) *or* BIO 347 Cell Physiology (4) *or* BIO 240-241, Human Anatomy and Physiology (4-4)
BIO 371 Human Fungal Diseases (I) *or* BIO 477 Mycology (4)
BIO 425 Microbiology (4)
BIO 441 Introduction to Immunology (1)
CHM 101-102 General Chemistry (4-4)
CHM 211-212 Organic Chemistry (4-4)
MAT 111 Precalculus Mathematics (3) *or* MAT 115 Elementary Mathematical Analysis

Recommended elective courses:

BIO 235 Genetics in Human Affairs (3)
BIO 335 Genetics (4)
BIO 465 Biochemistry (3)
BIO 495 Seminar (in related areas) (1)
*CHM 235 Quantitative Analysis (4)
CHM 325 Physical Chemistry (4)
PHY 101-102 Elementary College Physics (4-4)
STT 215 Introduction to Statistics (3)
Computer Science Courses

*Very highly recommended

Choice of elective course should be made jointly by the student and the Medical Technology advisor.

During the clinical training year at the affiliated hospital, the final 34 semester hours are earned from the courses listed below. Credit for these courses may not be counted toward any other degree at The University of North Carolina atWilmington.

Medical Technology Course Descriptions

MT 401. Immunology-Serology (2) A study of the innate and adaptive immune response mechanisms in the body and the laboratory methods used to evaluate these responses. Special emphasis on serological techniques.

MT 405. Hematology (8) A study of the formation, morphology, and functions of human blood cells, primary and secondary hematological diseases and clinical laboratory tests for diagnosing them; hemostasis and the evaluation of clotting disorders.

MT 407. Immunohematology (4) A study of the clinical transfusion service, including collection and handling of donor blood and its components, blood typing, compatibility testing between donor and recipient blood and between maternal and fetal blood, and identification of factors responsible for incompatibilities.

MT 412. Clinical Microbology (8) A study of the medically important bacteria, fungi, viruses, parasites, and associated infectious diseases; special emphasis on the

study of appropriate clinical specimens for isolation and identification of microorganisms involved in the infectious process and on testing these isolates for antibiotic susceptibility.

MT 414. Clinical Microscopy (2) Chemical and microscopic study of urine and other body fluids in health and disease, microscopic analysis of urinary sediment, and study of renal physiology.

MT 420. Clinical Chemistry (8-10) Study of the biochemical analyses of blood and other body fluids to evaluate the enzymes, hormones, electrolytes, drugs, and other important chemicals in the body; use and maintenance of sophisticated instrumentation and quality control.

MT 490. Special Topics in the Clinical Laboratory Sciences (1-2)

NURSING

Advisors: Ms. Majette, Ms. Payne, Ms. Stone, Dr. Gray (Registered Nurses only)

The University provides a four-year program leading to a Bachelor of Science degree with a concentration in nursing. Upon successful completion of the program and the recommendation of the faculty, graduates are eligible to write the licensure examination for registered nurses.

For further information on the Nursing program, refer to the section of this catalog which describes School of Nursing programs, requirements, and course offerings.

THE TEACHER EDUCATION PROGRAM

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have completed 45 semester hours of college credit, have a minimum grade point average of 2.0, have completed the University basic skills requirements in English and Mathematics and a Natural Science laboratory course with a grade of at least "C" in each course, have completed EDN 200, Teacher, School and Society, with a grade of "C" or better, and have passing scores on the teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

The University provides degree certification programs for elementary, middle grades, secondary, and special education teachers. For further information, refer to the section of this catalog which describes School of Education programs, requirements, and course offerings.

PRE-PROFESSIONAL PROGRAMS

PRE-AGRICULTURE AND PRE-FORESTRY

Pre-Agriculture Advisor: Dr. Merritt
Pre-Forestry Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students to transfer to schools offering professional training in the two fields. The programs are designed to meet the requirements and recommendations of the professional schools and students should plan their programs in consultation with the pre-agriculture or pre-forestry advisor.

PRE-ENGINEERING

Advisors: In General College Advising Center

The University offers courses in pre-engineering for students who may transfer to a specialized engineering school after one or two years.

General Requirements: Mathematics 161 (students with insufficient background may begin with MAT 115 or even MAT 111), 162, 261, 361; Chemistry 101, 102; Computer Science 121; Engineering 111; Physics 201, 202; English 101, 102, and one literature course; Economics 125 or 221; one History course;
Physical Education 101 (PED 102 is not required for graduation; however, four semesters of PE are required to graduate from N.C. State University); and one elective (Civil Engineering students should consider Geography 320).

Specific Requirements:
Chemical Engineering: Chemistry 311, 312
Civil Engineering: Geology 101; Engineering 211, 212
Electrical Engineering: See advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major in any discipline that fulfills the requirements for a baccalaureate degree at UNCW. In developing a Pre-Law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words; (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities, the association recommends a pre-legal education of "the broadest scope." To accomplish these goals The University of North Carolina at Wilmington offers a wide range of Pre-Law courses. Although Political Science and Business are frequently selected by Pre-Law students as their major, Economics, History, Sociology and others are sometimes selected. Regardless of the area of concentration, the Pre-Law student should be zealous in the selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the Pre-Law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is desirable and highly recommended.

Finally, the Pre-Law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectual discipline. "The best trained applicant for law school," states the Association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school should apply in time to insure that their completed file is available by January 1 of the year they plan to enter. This means that they should register for either the June or October administration of the Law School Admissions Test and for the Law School Data Assembly Service. The LSAT and the LSDAS are explained fully in the Law School Admission Bulletin which is available in the Department of Political Science. Additional information and advice may be secured from the Pre-Law advisor in the Department of Political Science.

PRE-MEDICINE, PRE-DENTISTRY, AND PRE-OPTOMETRY

Advisor: Dr. Ned H. Martin

The University of North Carolina at Wilmington offers an excellent opportunity to students desiring preprofessional training in dentistry, medicine, or optometry. Although specific requirements may vary among various schools, all emphasize core courses in biology, chemistry, mathematics, and physics. These courses could be incorporated in almost any major, and students should give consideration to a major which they find interesting and in which they feel confident. Students majoring in the natural sciences should have a broad background in the humanities and social sciences areas. Most medical and dental schools recommend that students receive a bachelor's degree (B.A. or B.S.) before admission. While planning their curriculum, students should keep in mind the graduation requirements which include a total of 124 credit hours, the basic studies requirements, and the requirements of their chosen area of concentration. Pre-medicine, pre-dentistry, and pre-optometry are not majors; however, there are B.A. degree programs in Biological Sciences, in Chemistry, and in Physics with an emphasis in the pre-medical sciences.

In addition to the required core courses, almost all medical schools require taking the Medical College Admission Test (MCAT), dental schools require taking the Dental Admission Test (DAT), and optometry schools require taking the Optometry College Admission Test (OCAT) prior to consideration for admission. Scores on these tests constitute an important part of the admission criteria. Students usually take these tests during their junior or early senior year.

High academic achievements should be coupled with extracurricular activities as most professional schools prefer students who are well-rounded.

Required Courses

The following courses fulfill the *minimum* requirements of a large number of medical and dental schools.

General Chemistry (CHM 101-102 with labs)
Organic Chemistry (CHM 211-212 with labs)
Quantitative Analysis (CHM 235 with lab)
Animal Biology (BIO 206)
Cell Biology (BIO 207)
Comparative Vertebrate Anatomy (BIO 315)
Physics (PHY 101-102 or 201-202)
Precalculus Mathematics (MAT 111-112 or 115)

Additional Recommended Courses
Calculus (MAT 161-162)
Biochemistry (BIO 465 or CHM 465)
Medicinal Chemistry (CHM 417)
Animal Physiology (BIO 345)
Advanced Organic Chemistry (CHM 415)
Vertebrate Embryology (BIO 316)
Genetics (BIO 335 or 235)
Physical Chemistry (CHM 325 or 321-322)
Cell Physiology (BIO 347)
Microbiology (BIO 425)

The pre-medical advisor helps students in curricular planning, academic progress, preparation for admission tests, and with application for admission to professional schools. The Premedical Sciences Advisory Committee composes a consensus evaluation of each applicant to medical science profession schools. Students interested in a career in the health sciences should consult the advisor for additional information as early as possible in their academic programs.

PRE-PHARMACY

Advisor: Dr. Sayed

Students interested in careers in Pharmacy should consult with the Pre-Pharmacy advisor before arranging their academic schedules. Basic coursework in Biology, Chemistry, Physics, and Mathematics is required, as well as additional studies in the Social Sciences and Humanities in the two-year Pre-Pharmacy program. Students should arrange through their advisor to take the Pharmacy College Admission Test (PCAT) in November of their second year. Applications to pharmacy schools should be made in the fall or winter of the second year.

PRE-PHYSICAL THERAPY

Advisor: Dr. Stokes

The University offers courses in pre-physical therapy for students who wish to apply to a specialized physical therapy program. The program of study outlined below is designed to meet minimum requirements at UNC-Chapel Hill.

General Requirements: Foreign Language through 201; English 101 and 102; Mathematics 115 and 161; Chemistry 101 and 102 with labs; Biology 105 or 206 and 215 with labs; Physics 101 with lab; two courses in Social Science; one course in Philosophy; one course in Literature; one course in Fine Arts; two courses in History; Psychology 105; three elective courses; two Physical Education activities courses.

All of the above courses must be completed by the end of the spring semester prior to fall entrance, except one elective which may be taken during the first session of summer school. For application requirements see advisor.

PRE-VETERINARY MEDICINE

Advisor: Dr. Ballard

The student interested in applying to a school of veterinary medicine may complete basic requirements for admission at The University of North Carolina at Wilmington. Specialized courses not offered at this institution must be taken elsewhere. The only

chool of veterinary medicine in North Carolina is located at North Carolina State niversity in Raleigh.

Students planning to pursue a career in veterinary medicine should consult with ne advisor to plan the program of study.

SPECIAL PROGRAMS

MARINE SCIENCES

Marine Science activity at The University of North Carolina at Wilmington consists f instructional and research programs on the University's main campus as well as pecialized research activities associated with its Institute for Marine Biomedical Re-earch at Wrightsville Beach.

The programs in Marine Sciences on the University's main campus consist of a Marine Biology curriculum leading to the B.S. degree, a Marine Biology curriculum eading to the M.S. degree, and a Faculty Marine Science Research Program.

MARINE BIOLOGY CURRICULUM

The UNCW Marine Biology curriculum is a unique baccalaureate program in the Jniversity system. It includes a strong foundation of Biology with an emphasis in Marine Biology at the junior and senior levels. Full use is made of the natural laboratory rovided by the adjacent Atlantic Ocean through extensive field work in many Marine Biology courses. Approved collateral requirements include marine-oriented courses in Mathematics, Physics, Chemistry and the Earth Sciences. The curriculum is flexible nough to meet the individual needs of the student enabling preparation for graduate tudies or for teaching and research careers available to one with the baccalaureate legree. Requirements for the B.S. degree in Marine Biology are listed under Biological Sciences in the Degree Program Requirements section of this catalogue.

MARINE BIOLOGY GRADUATE PROGRAM

The graduate program leading to the Master of Science degree in Marine Biology ncludes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each of these tracks is designed to provide the necessary latitude to llow students to develop programs of study appropriate to their needs. Further in-ormation is given in the Graduate Studies section.

MARINE SCIENCE RESEARCH PROGRAM

The Marine Science Research Program has many active participants with research nterests covering areas of Marine Biology, Physical and Chemical Oceanography, Ma-ine Geology and Marine Biogeography. There are two categories of participants in the rogram: those who hold research positions and those who hold regular teaching ositions but who are also engaged in Marine Science research. All participants are nvolved in the Marine Science instructional program.

INSTITUTE FOR MARINE BIOMEDICAL RESEARCH

The Institute for Marine Biomedical Research constitutes a major component of the verall Marine Science development effort at UNCW and has the dual mission of onducting research programs of the highest quality and utilizing these programs as n instrument in the education of students.

The Institute's scientific program focuses on three related areas. Experimental Biology addresses itself to broad problems of adaptation and acclimatization of animal life at all levels of development to the environmental stresses characteristic of the marine environment. Biomedical studies are concerned with ion transport and calcification in marine organisms and other vertebrates and regulatory processes such as hormonal and temperature regulation in marine invertebrates. The Experimental Oceanology program covers a broad range of efforts related to the ocean environment, using the ocean as a laboratory in which the methods of experimental science can be applied to the solution of problems related to management, conservation, and development of marine life.

Supporting the Institute's research program are a series of specialized facilities, including the complex of deep-sea simulators capable of simulating ocean depths of 30,000 feet, a biochemistry laboratory, histology laboratory, a photographic laboratory, and electronic and machine shops.

ENVIRONMENTAL STUDIES CURRICULUM

The Environmental Studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes students to a broad range of analytical procedures in the natural and social science, while allowing them to develop special capabilities within their primary area of interest.

The curriculum is divided into two parts: a multidisciplinary core consisting of course work in the natural and social sciences, including an environmental impact seminar, and an area of specialization consisting of course work within approved disciplines. Those who wish to emphasize Marine Science may do so by electing an approved sequence of courses in Marine Science. Other available concentrations include: Biology, Chemistry, Earth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, Sociology and Anthropology. Requirements for the B.A. degree in Environmental Studies are listed in the Degree Program Requirements section of this catalogue.

FIELD EXPERIENCE IN BIOLOGY

The Department of Biological Sciences offers a summer field experience in various biological disciplines at selected areas within and outside the continental United States. Participating students may conduct individual or group research, with faculty guidance, on both marine and terrestrial organisms. Research already has been conducted in such places as the Florida Keys, the Bahamas, and parts of Central and South America.

ARMY ROTC

The Army Reserve Officers' Training Corps at The University of North Carolina at Wilmington provides men and women, who meet the physical and mental requirements, the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Transfer and graduate students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

PROGRAM IN SCIENCE AND CULTURE

The Program in Science and Culture, a research and teaching unit, conducts research in the general area of the relation between creativity in the natural sciences and the social, political, and philosophical characteristics of the culture in which the scientific work is being conducted. The model upon which current efforts are concentrated is the emergence of experimental science and the beginnings of the scientific revolution in Western Europe and a comparison with those of other civilizations, notably the Islamic and the Chinese. This program utilizes its research as the basis of its teaching functions by incorporating students as research participants.

SUMMER SESSIONS

The Summer Sessions constitute an integral part of the University's academic year. Students may take advantage of several unique programs related to the marine environment and other interesting subject areas. A variety of courses is offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to removed deficiencies. During the summer sessions, undergraduate students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. In addition, public school teachers may wish to renew or change fields of certification or pursue a program of graduate studies in the School of Education.

Further information concerning the Summer Sessions may be obtained by contacting the Director of Summer School.

OFFICE OF SPECIAL PROGRAMS

Through the Office of Special Programs, the University serves the surrounding community by offering a variety of educational and service-oriented activities which can be academic or non-academic in nature. These include continuing education and university extension programs.

CONTINUING EDUCATION

The University responds to the continuing education needs of the community by developing programs cooperatively with business, industry, educational institutions, service organizations, social service agencies, government agencies, civic groups, and individuals. Participation in these non-academic programs is based on the needs of an individual or group and the appropriateness of the activity.

PROGRAMS AND SERVICES FOR BUSINESS AND INDUSTRY

The Office of Special Programs offers a variety of short courses, conferences and workshops specifically designed for business and industry. University faculty and staff or individuals from other universities or organizations conduct programs in communications, management, planning, supervision, small business administration, or other similar topics. Annually, faculty from the Cameron School of Business Administration conduct a series of professional development courses in business. Activities are offered to the general public or can be custom designed for a specific business or industry.

PROGRAMS AND SERVICES TO PUBLIC ORGANIZATIONS

Because the University is vitally interested in assisting public organizations (municipal, county, state, and federal) with their training and educational programs, the Office of Special Programs offers a variety of continuing education activities, including credit courses, noncredit short courses, workshops, conferences, and seminars.

PROGRAMS AND SERVICES TO SCHOOL SYSTEMS

The University also assists school systems with programs for the professional improvement of teachers. Courses can be designed to meet certification and renewal requirements and to provide general training for teachers and administrators. Courses can also be designed to meet the needs of a specific school or system.

PROGRAMS AND SERVICES TO THE GENERAL PUBLIC

A full range of community interest programs designed to raise the level of awareness of issues affecting daily life and to contribute to personal enrichment is offered by the Office of Special Programs. These activities include speakers, discussion groups, short courses, workshops and conferences with topics ranging from local problems to international affairs. Activities are non-credit in nature, focusing on topics of international interest to the general public.

UNIVERSITY EXTENSION PROGRAM

In an effort to reach beyond the campus boundaries the University offers, through the Office of Special Programs, a number of freshmen and sophomore level courses at Bladen Technical College in Dublin, and Sampson Technical College in Clinton, North Carolina.

The technical colleges are responsible for recruiting and enrolling students who must be high school graduates or the equivalent. Students enrolled in the program who desire to become degree candidates on the University campus must meet regular admission requirements for freshmen or transfer students.

An additional dimension of the Extension Program includes undergraduate and graduate instruction in the field of education at off-campus sites. Utilizing faculty from the School of Education, these courses are offered to meet the staff development and/or graduate education requirements of local teachers.

All requests for transcripts for University extension courses should be forwarded to the Registrar of The University of North Carolina at Wilmington.

Further information concerning the Extension Program may be obtained by contacting the Director of Special Programs.

GRADUATE STUDIES

GRADUATE STUDIES

The University of North Carolina at Wilmington offers programs of study leading to the Master of Business Administration degree, the Master of Education degree, and the Master of Science degree in Geology and Marine Biology.

The Master of Business Administration program is an advanced degree program designed to enhance the development of the professional manager. The program consists of three parts: a common body of knowledge essential for managers of business firms and other organizations; a series of courses in various functional areas of business that enable the development of expertise in general management; and electives consistent with individual career objectives.

The Master of Education degree is granted in Elementary Education, in Reading Education, in Special Education, and in Educational Administration and Supervision. The program in Elementary Education offers specialties in (a) Early Childhood Education and (b) Intermediate Education, and (c) Middle Grades Education. The Program in Reading Education prepares Reading Education Specialists (K-12). The program in Special Education is cross categorical (K-12). The program in Educational Administration and Supervision offers specialties in (a) Administration leading to certification for the professional role of principal, and (b) Supervision leading to certification for the professional role of curriculum-instruction specialist.

The Master of Science degree program in Geology includes three areas of emphasis: Coastal Processes, Coastal Plains Geology and Marine Geology. Each area of emphasis is designed to develop professional geologists capable of conducting research in sedimentary geology through broadly-based study of modern geological processes and their ancient analogs.

The Master of Science degree program in Marine Biology includes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each track is designed to provide the necessary latitude to allow the student, in consultation with a faculty committee, to develop an appropriate program of study.

These programs provide capable students an opportunity to pursue advanced study, training, and research designed to enhance their academic and professional development.

ADMISSIONS: MASTER'S DEGREE PROGRAM

General Admission Requirements

For admission to a graduate degree program at The University of North Carolina at Wilmington, the applicant must (1) hold a bachelor's degree from an accredited college or university in this country or its equivalent in a foreign institution based on a four-year program; (2) have a strong overall academic record with a B average or better in the basic courses prerequisite to the area of proposed graduate study; and (3) present satisfactory scores on the specified examination. (Test scores more than five years old at the time of application will not be considered.) In addition, students who are taking or have taken graduate work elsewhere must be in good standing at that institution to be eligible to take graduate work at UNCW.

Applications for admission to a graduate degree program should be filed in the Graduate Office at least sixty (60) days in advance of the term in which admission is sought. If admitted applicants do not register for the term specified in this application, their admission will be subject to review at a later date. In some cases, students who are not seeking a graduate degree may be permitted to take graduate courses as a Special Graduate enrollee. Such permission to take graduate courses as a Special Graduate Student does not constitute admission to a graduate degree program. A student who leaves the University and does not register for at least one semester must apply for readmission to graduate studies.

Each student admitted to a graduate degree program must have a completed medical report form on file at UNCW before initial registration may be effective. **In addition, an immunization record for each newly admitted UNCW graduate student, regardless of status, is required by law to be on file at UNCW prior to enrollment.**

Graduate students are subject to the same University policies and regulations as undergraduates unless otherwise stated.

Requirements for Admission to Master of Business Administration Program

Applicants seeking admission to the graduate program in Business Administration are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
(3) official scores on the Graduate Management Admission Test (GMAT)
(4) three recommendations including one from an employer or supervisor who can comment on the applicant's work experience and potential for successful completion of a master's program

A strong overall academic average, a total score of 1,000 or more based on the formula: 200 times the upper division grade point average (4.0 systems) plus the GMAT score, and at least one year of appropriate full-time work experience are minimum requirements for graduate admission. However, admission decisions are based upon several factors; and if other indicators of success are evident, individuals who fall below the established criterion in one of the areas may be considered for admission.

Requirements for Admission to Master of Education Programs

Applicants seeking admission to a graduate program in Education are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
(3) official scores on the Miller Analogies Test
(4) three recommendations by individuals in relevant professional fields

A score of 40 on the Miller Analogies Test and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors, and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

In addition to the general requirements, applicants to the program in Elementary Education are required to hold, or be qualified to hold, North Carolina "A" teacher certification in Early Childhood Education, Intermediate Education, or Middle Grades Education. Applicants to the program in Special Education are required to hold or be qualified to hold North Carolina Class "A" special education teacher certification in at least one area of exceptionality and are required to have taken at least one course in mental retardation, one course in learning disabilities, and one course in emotional disturbance. Applicants to the Educational Administration and Supervision and Reading programs are required to hold, or be qualified to hold North Carolina Class "A" elementary, middle grades or secondary teacher certification.

Under exceptional circumstances, individuals who do not hold the specified teaching credential may be admitted. Such exceptions may be made in cases of otherwise qualified applicants who are engaged in relevant professional roles not requiring teacher certification and who may profit professionally from the type of advanced study offered at this institution. Examples of applicants for whom exception is appropriate may include community college administrators and teachers. In such instances, the programs may be modified appropriately. Individuals admitted under such exceptions are not qualified, however, upon completion of the graduate program for the institution's

recommendation for North Carolina Board of Education instructional or administrative certification.

Students who seek professional improvement but do not intend to pursue a degree may register for graduate courses through procedures established for Special Graduate Students.

Requirements for Admission to Master of Science Programs

Applicants seeking admission to a graduate program in Geology or Marine Biology are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
*(3) official scores on the Graduate Record Examination, verbal and quantitative
(4) three recommendations by individuals in professionally relevant fields

A score of 1000 on the Graduate Record Examination (verbal and quantitative) and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors; and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

Although interviews are most helpful to both the faculty and to the graduate applicant, they are not required.

*Students seeking admission to the program in Geology or Marine Biology are also required to take the Graduate Record Advanced Test in geology or biology, as appropriate.

Application forms and other admissions information may be obtained by writing to the Office of Graduate Studies, The University of North Carolina at Wilmington, 601 South College Road, Wilmington, North Carolina 28403-3297.

EXPENSES

The Board of Governors of The University reserves the right to change the charges for tuition, fees and the room and board rate at any time without prior notice.

Tuition and Fees (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full Time Charges Per Semester:

	In-State Students	Out-of-State Students
Tuition	$205.00	$1,829.00
Fees	228.00	228.00
Total	$433.00	$2,057.00

Other Fees:	
Application Fee (to accompany application, nonrefundable)	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Graduate students registering for nine or more semester hours will be charged at the full-time rate as shown on page 236. Students scheduling fewer than nine semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
0-Thesis only	$123.50	$ 318.50
1-2	$ 80.50	$ 486.50
3-5	$132.50	$ 944.50
6-8	$196.00	$1,414.00

The privileges of students taking fewer than nine hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $16.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

*See information on residency at the end of this section.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full prior to preregistration or registration for a new term.

On-Campus Living

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,175.00
Room and Board:	21 meals	$1,200.00

Three meal plans are available for apartment students. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,275.00
Apartment and Board:	15 meals	$1,300.00
Apartment and Board:	21 meals	$1,325.00

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

An advance room reservation deposit of $100.00 to be applied to the room and board account must be remitted by each applicant along with the complete application for room and board.

Those interested in obtaining information should contact:

Housing Office
The University of North Carolina at Wilmington
601 S. College Rd.
Wilmington, North Carolina 28403-3297

Summer Session

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

Refunds — Tuition

A student who officially withdraws from the University on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid. Students withdrawing from the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to *complete* withdrawals from UNCW. If you simply reduce your course load after the Drop/Add period, you will receive NO refund reduction of fees whatsoever.

Refunds — Financial Aid

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

Refunds — Housing

Housing agreements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except as provided for below:

1. New Students (Incoming Freshmen and Transfers) - If a new student, after remitting the deposit and being accepted to on-campus housing, decides not to live on campus and gives notice of this decision **in writing** by May 17, 1987 in the case of application for the fall semester, or at least one month prior to the semester in the case of application for the spring semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for refund received after May 17, 1987 will be denied and the $100.00 deposit forfeited. This condition also applies to students remitting the deposit and accepted to on-campus housing after May 17, 1987.
2. Returning Students (Students currently or previously enrolled at UNCW) - The $100.00 housing deposit is **non-refundable** to returning students after being accepted to on-campus housing. (Exceptions being marriage, transferring to another institution or withdrawal from UNCW - less $25.00 administrative fee). Notification must be received in the Housing Office, **in writing,** by May 17, 1987.
3. Room rent for either semester will not be refunded once a student officially moves into a residence hall/apartment.
4. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

Residence Status for Tuition Payment

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the institution of that statement to be conditioned by the statement beginning on page 30 of this catalogue.

The initial classification of graduate students as in-state or out-of-state residents for tuition purposes is made by the Office of the Director of Graduate Studies. Appeals for

In-state status may be made to the campus appeals body, Out-of State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available in the undergraduate Admissions Office and in the Student Affairs Office for inspection upon request.

FINANCIAL AID FOR THE GRADUATE STUDENT

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general Minority Presence Grant Program, black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

ASSISTANTSHIPS

Teaching and Research Assistantships are available on a limited basis through the Department of Biological Sciences and the Department of Earth Sciences. The admission application process determines candidates.

Graduate Assistantships are available on a limited basis through the Cameron School of Business Administration and the School of Education. For information contact the Dean of the appropriate school.

FELLOWSHIPS

The Sylvia and B. D. Schwartz Graduate Fellowship Award is established to provide tuition and fees assistance to a student enrolled in one of the graduate programs at The University of North Carolina at Wilmington.

LOANS/COLLEGE WORK STUDY PROGRAM

Students who are enrolled at least half-time in the Graduate Studies Program at UNCW may apply for the following types of financial aid:

Guaranteed Student Loan Program provides loans to graduate students who qualify on the basis of financial need. Applicants complete the regular financial aid application process in addition to completing a loan application. Students may borrow up to $7,500 per academic year for five years. Repayment begins six months after the student ceases to be enrolled at least half time. The interest rate is calculated at eight percent for the first four years of repayment but escalates to 10 percent during the fifth year of repayment: Borrowers may be given up to 10 years to repay their loans.

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least half-time and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

For additional information, contact the Financial Aid Office.

VA Educational Benefits

Veterans and dependents are urged to utilize their VA Educational Benefits while enrolled in the graduate programs at the University. The available benefits are determined by the amount of eligibility time a veteran or dependent has remaining and the delimiting date that is involved.

For further assistance, contact the Veterans Coordinator in the Student Financial Aid Office.

ACADEMIC REGULATIONS AND PROCEDURES

Registration

No minimum number of hours is required for official registration; however, specified maximum course loads must not be exceeded. Students in a graduate degree program are permitted to register for no more than 15 hours in any one semester. Course loads for students who have service appointments will be determined on an individual basis. A student enrolled in the summer may not register for, and will not receive credit for, more than six hours a term.

Course Credit

Courses Eligible for Degree Credit

For courses offered at this institution, graduate course credit may be received only for courses taken after a student has been formally admitted to graduate studies, except as described in the paragraphs below.

Final semester seniors at this institution with at least a B average in the major who need fewer than 15 hours to complete requirements for the bachelor's degree may take one or two graduate courses for the purpose of later receiving graduate credit, provided that they are not enrolled for more than a total of 15 hours. To do this the student must (1) obtain permission in advance from his or her department chairman or School dean as appropriate, and (2) present it to the Director of Graduate Studies for approval. Graduate courses taken under this provision may not be used in fulfilling baccalaureate degree requirements. Undergraduate students at other institutions who have taken graduate course work under similar arrangements may not transfer such work here.

Graduate courses taken at this institution before formal admission to graduate studies will meet course requirements for a graduate degree only if offered and approved as transfer credit, and no more than six credit hours of such courses are eligible for transfer.

Degree related extension courses offered at this institution may be applied toward a graduate degree as follows: (a) with the approval of the appropriate Dean, a non-degree student may apply for a maximum of six hours of relevant courses as transfer credits at the time of admission to a program, (b) with the prior approval of the appropriate Dean, a student who is already admitted to a degree program may apply up to six hours of relevant courses toward the residence requirement. Request for application of an additional six hours toward the residence requirement may be submitted to the Graduate Administrative Board.

Transfer of Course Credit

A maximum of six semester hours of graduate credit may be transferred from another accredited institution, or for courses taken at this institution before admission to graduate studies, in partial fulfillment of the total hours required for the master's degree. Correspondence courses will not be accepted for transfer credit. When special circumstances warrant, students may petition the Graduate Administrative Board for transfer of more than six semester hours. Each such petition must be accompanied by a statement of endorsement from the appropriate Dean.

Grades earned on transferred work must be equivalent to B or better. Transferred credit will be accepted by the Director of Graduate Studies only upon recommendation of the Dean of the School or College in which the student is enrolled. The graduate office must have an official transcript showing the satisfactory completion of courses offered for transfer credit. The courses must have been taken within the allowed time limits for the degree. Transfer of credit does not reduce minimum rresidence requirements for a master's degree.

A student in graduate studies who wishes to take one or more courses elsewhere for graduate degree credit must obtain prior approval from the appropriate Dean and Director of Graduate Studies.

Courses Approved for Undergraduate Credit Only

Courses approved for undergraduate credit only may not become a part of the graduate degree program and do not carry either course or residence credit.

A graduate student who is required to take undergraduate courses, whether as a requisite for admission or for other reasons, or who takes such courses in the field of his or her graduate major, must make grades of at least B on all such courses in order to maintain eligibility as a graduate student.

A graduate student voluntarily electing to register for undergraduate courses may make any grade above F without jeopardy to his or her graduate standing.

Adding, Dropping, Withdrawing

Courses may be added only in the official Drop/Add period, which is noted in the Calendar of Events. To add a course, the student must present to the Director of Graduate Studies a Schedule Revision Card signed by his or her advisor and the course instructor.

Every course for which a student is registered must be either completed or formally dropped; however, no course may be dropped in the last five weeks in a semester or during the last week of summer session.

To drop a course, the student must obtain a Schedule Revision Card from his or her advisor. If the advisor approves, the student must obtain the instructor's signature and indication of whether the student is passing or failing the course. The Schedule Revision Card must then be presented to the Director of Graduate Studies for his approval.

If, at the time a student drops a course, performance in that course is judged by the instructor to be passing, a grade of WP is assigned on the student's permanent record; however, if the student is judged by the instructor to be failing, a grade of F is assigned on the student's permanent record, and the student becomes ineligible for further registration.

A student may not use a Schedule Revision Card to drop his or her only course but must officially withdraw from the University. To withdraw officially from the University, a student must come to the office of the Director of Graduate Studies and complete a permit to withdraw.

Graduate Grading

Grades for graduate students enrolled in graduate courses must be reported as one of the following:

H – clear excellence
P – entirely satisfactory
L – low passing
F – fail
S – satisfactory progress on thesis
I – work incomplete
WP – withdraw passing

A student receiving grades of L on any three courses or on 12 semester hours (whichever comes first) or any grade of F is ineligible to continue in graduate studies.

When special circumstances warrant, students declared ineligible under the preceding paragraph may be reinstated upon petition by the student to the Graduate Admin-

istrative Board. Each such petition must be accompanied by a statement of endorsement or nonendorsement from the Dean of the School or College in which the student is enrolled. Any reinstatement is provisional in that an additional grade below P will again result in the student's ineligibility.

An incomplete grade may be given if the course instructor determines that exceptional circumstances warrant extending the time for the student to complete the course work. The instructor may set the maximum allowable period for completion of the course work, but in no case will extension exceed one year. If the time allowed is to be less than one year, this information should be transmitted in writing to the student, with a copy to the Director of Graduate Studies. If within 12 months a grade change request has not been submitted by the instructor, the incomplete automatically becomes an F.

Grades of H, P, L, S, F, and WP are permanent grades and can be changed only by the Director of Graduate Studies in cases of arithmetical or clerical error or as a result of protest of grade.

Procedure for Protest of Grade

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. Such appeal must be made not later than the last day of the next regular semester.

The student shall present the appeal in writing to the Dean of the College or School within which the protested grade was awarded. By conferring with the student and the instructor, the Dean will seek resolution by mutual agreement. Failing such resolution, the Dean will transmit the written appeal to the Director of Graduate Studies. The Director will convene the Grade Appeals Committee. The Grade Appeals Committee will consist of the Director as chairman and five members of the graduate faculty appointed by the Director. If the Committee affirms the instructor's decision, the Director will notify in writing the faculty member, the student, and the appropriate Dean. If the Committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

Residence Credit Computation

Conversion of semester hours to residence credit is on the following basis:

1. Nine or more semester hours in a given semester earn a full semester of residence.
2. Six to eight semester hours earn one-half semester of residence.
3. Three to five semester hours earn one-fourth semester of residence.
4. Credits earned in any summer session count towards residence credit on the same basis as courses taken in regular semesters.

Master's Degree Examination

Every master's candidate must pass either a written comprehensive examination covering his or her field of study, or an oral comprehensive examination covering all course work required for the degree, or both, according to the decision of his or her department or School. Neither examination may be taken until the course work is completed or until the final courses are in progress and must be scheduled in conformance with the deadline established by the Dean of the School or College in which the student is enrolled. If a thesis is required, a final oral defense of the thesis may be required in addition to the comprehensive examination, or as part of the oral examination.

A committee of at least three members of the graduate faculty (at least two of whom must be in the major program) evaluates the student's work for the master's degree,

approves any thesis required, and administers any oral examination that may be given. If the student has a minor field of study, at least one member of the student's committee must represent the program of the minor.

A master's candidate who fails either a comprehensive written or oral examination may not take the examination a second time until at least three months have elapsed. No student may take an examination a third time without approval of the Graduate Administrative Board. A student passes an examination only on approval by at least two-thirds of the members of the examining committee. The vote of the examining committee is considered to be final.

Registration for Thesis

Every student required to write a master's thesis must register for a minimum of three hours of thesis credit. A maximum of six credit hours for the thesis may be used toward course requirements for the master's degree. During each term that a student is working on a thesis, he or she should register for as many hours as are academically appropriate, except that, if the required hours of thesis credit have been taken, the student may register for zero credit hours so long as this is the only course for which he or she is registered.

Any student engaged in thesis research and/or writing that involves the use of University faculty or facilities must be registered during the semester or summer session in which he or she is using faculty time or facilities, whether the student is in residence or not. This registration may be for zero credit hours if the student had registered previously for the required number of semester hours of thesis credit. Provided that no use of University faculty and/or facilities is required, a student need not be registered in the semester in which the degree is to be awarded.

Foreign Language Requirement

Foreign language requirements differ from one graduate degree program to another. At an early stage, a graduate student should consult his or her graduate program advisor concerning what foreign language, if any, will be required. The requirement for a student in a given program must be one of the options approved for that program by the Graduate Administrative Board.

Each department or curriculum shall determine when a graduate student must fulfill a foreign language requirement, provided that such requirement be satisfied before a student is admitted to candidacy. At the time a student requests admission to candidacy, his or her Dean will be asked to certify on the application of candidacy that such requirement has been met.

Application for Admission to Candidacy and for the Degree

A student in a master's degree program applies for admission to candidacy at the time of application for the degree. To be eligible for graduation each student must apply for a specific graduation on or before the deadline shown in the Calendar of Events.

If a student has already applied for candidacy and for the degree but fails to meet a deadline for a particular graduation, he or she must reapply for the degree, specifying a new graduation date.

Degree Time Limits

A graduate student has five calendar years from the date of first registration in the graduate program to complete the master's degree. Courses transferred from other graduate schools for application toward degree requirements must have been taken within the specified time limits for that degree.

When extenuating circumstances warrant, an extension of the degree time limit may be granted a student upon his or her petition to the Director of Graduate Studies. At

the same time such a petition is filed, the student should request the Dean of the School or College in which he or she is enrolled to forward to the Graduate Administrative Board a recommendation regarding the extension.

MASTER OF BUSINESS ADMINISTRATION

The University of North Carolina at Wilmington offers a program of study leading to a Master of Business Administration degree for any qualified holder of a bachelor's degree from an accredited college or university regardless of undergraduate field of study. The program's objective is the development of the broadly educated professional manager.

Degree Requirements

1. Fifty-four semester credit hours of approved graduate credit must be satisfactorily completed for the degree. This number of credit hours may be reduced for students who qualify for and are granted certain course waivers. Petitions for waiver are submitted to the Dean of the Cameron School of Business Administration upon acceptance for admission into the program. Despite the number of waivers granted, a minimum of 42 semester hours of graduate study must be completed. Up to six hours of graduate study may be accepted as transfer from an accredited college or university. However, the last 36 hours of graduate study must be completed at The University of North Carolina at Wilmington.
2. The student must satisfy a minimal mathematics requirement in calculus. This requirement may be satisfied by completing Mathematics 151, its equivalent, or by passing the Advanced Placement Test (AB) in calculus.
3. The student must successfully complete a qualifying examination consisting of a oral comprehensive examination.
4. Each student must complete the approved course of study within five years of the date of first registration for graduate study.

Course Requirements for the Master of Business Administration Degree

Students with undergraduate or graduate work in business administration may have the program of study reduced through waivers for certain courses. Students with no prior work in business administration will be required to take the following program.

A. Core Requirements (24 semester hours)

The following courses comprise the common body of knowledge essential to a basic understanding of modern business and managerial practice. These courses must be completed by each student unless evidence of substantial academic work in such courses at the undergraduate or graduate level is presented. Requirements may be waived on a course-by-course basis by the MBA Admissions Committee subject to approval of the Dean of the Cameron School of Business Administration.

ACG 501	Financial Accounting (3)
ECN 520	Economic Analysis I (3)
BUS 503	Quantitative Methods (3)
BUS 508	Management Information Systems (3)
BUS 510	Legal Environment and Business Regulation (3)
BUS 550	Organization Theory and Behavior (3)
FIN 535	Managerial Finance (3)
MKT 545	Marketing Management (3)

B. Professional Competence and Integrative Applications (24 semester hours)

In addition to the Common Body of Knowledge, the following courses develop depth and breadth of knowledge and provide analytical skills for practical application. All students will be expected to complete these courses unless *extensive* evidence of prior study in such courses at the undergraduate or graduate level is presented. Although waiver of courses in this group is rare, requirements may be waived on a course-by-course basis by the MBA Advisory Committee subject to the approval of the Dean of the Cameron School of Business Administration. NO WAIVERS OR TRANSFER CREDIT WILL BE GRANTED FOR BUSINESS 555, BUSINESS 565, AND BUSINESS 595 UNDER ANY CONDITIONS.

ACG 502	Managerial Accounting (3)
ECN 521	Economic Analysis II (3)
BUS 555	Practice of Management (3)
BUS 557	Production/Operations Management (3)
BUS 565	Current Issues in Business (3)
BUS 595	Corporate Policy and Strategy (3)
FIN 536	Financial Policy (3)
MKT 546	Strategic Marketing (3)

C. Electives (6 semester hours)

Candidates will strengthen their knowledge and sharpen their skills in particular areas by taking at least two courses from the five elective areas: Accountancy, Economics, Management, Marketing, and Finance.

GRADUATE PROGRAM IN BUSINESS ADMINISTRATION

Course Descriptions

ACCOUNTANCY

ACG 501. Financial Accounting (3) An intensive course in accounting principles with special emphasis on the concepts underlying income determination, preparation and interpretation of financial statements and the managerial uses of accounting information. Topics include transaction analysis, asset valuation and expense recognition, capital structure and tools of financial analysis.

ACG 502. Managerial Accounting (3) Prerequisite: Accounting 501. Interpretation and use of accounting information in the planning, coordination and controlling of business activities. Topics include cost behavior, manufacturing and distribution cost-volume-profit relationships; effects of taxation and price level changes on business decisions; budgeting and responsibility accounting. Case studies emphasized.

ACG 503. Advanced Managerial Accounting (3) Prerequisite: Accounting 502. An in-depth study of cost concepts appropriate for decision-making and of the budgetary procedures used in planning and control. Emphasis is placed on relating recent advances in the quantitative and behavioral sciences to the role of the contemporary managerial accountant. Case analysis is emphasized.

ACG 506. Current Issues in Financial Accounting (3) Prerequisite: Accounting 501. Advanced study of the principles and theory underlying the preparation of financial statements. Consideration is given to the problems related to pension plans, long-term leasing arrangements, refunding of bonds outstanding, alloca-

tion of income taxes, changing price levels, and other controversial issues. Utilizes text, authoritative statements, and articles from the current literature.

ACG 508. Taxation and Business Decisions (3) Prerequisite: Accounting 502. The accounting and managerial effects of taxation upon decisions, policies, and procedures in the planning, organization, and operation of a business enterprise. Areas covered include the taxing process; taxation of individuals, corporations and fiduciaries; investment incentives; capital gains and losses; tax shelters; and tax planning. Problems and case analysis are used.

ACG 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

BUSINESS MANAGEMENT

BUS 503. Quantitative Methods (3) Prerequisite: Completion of mathematics through calculus. Techniques for the analysis of business data. Topics include descriptive and inferential statistical methods, probability, decision theory, and linear programming.

BUS 504. Advanced Quantitative Methods (3) Prerequisite: Business 503. Quantitative techniques for the solution of business problems. Topics include mathematical programming, simulation, queuing theory, network theory, and game theory. Emphasizes the mathematical formulation and solution of problems using a computer.

BUS 507. Advanced Business Statistics (3) Prerequisite: Business 503. Advanced statistical applications used to support the business decision-making process. Topics include multiple linear regression, nonlinear regression, time series analysis, experimental design, decision theory, and non-parametric statistics.

BUS 508. Management Information Systems (3) A study of the process of analyzing, designing, and implementing computer based systems which have information as their product. Minicomputer and microcomputer projects provide opportunities for comparing concepts with actual systems. An introduction to the BASIC programming language and orientation on the VAX minicomputer system are integral parts of the course.

BUS 510. Legal Environment and Business Regulation (3) A study of the management process and how it is influenced by the constitutional, legislative, judicial, regulatory, administrative, and social forces exerted on the business and social environment.

BUS 550. Organization Theory and Behavior (3) Study of historical, theoretical and practical foundations for understanding organizational structure, behavior and performance. Emphasis on problem solving issues and applications in design, leadership motivation and interpersonal communciations.

BUS 555. Practice of Management (3) Prerequisite: Business 510 and Business 550. Major problems and decision areas confronting middle and upper-level managers. Topics include long-range planning, management by objectives, project management, leadership style, and performance appraisal. Case analysis is used

to foster application of current managerial techniques to the analysis, solution, and prevention of organizational problems.

BUS 556. Personnel and Labor Relations (3) Prerequisite: Business 550. A study of manpower planning, training and development, job analysis, employee evaluation, labor legislation, and the collective bargaining process. This course is designed to foster a managerial understanding of the management of human resources rather than a technical orientation.

BUS 557. Production/Operations Management (3) Prerequisite: Business 503 and Business 550. Techniques to aid the operations manager in making key decisions during the initial, online, and control stages of production. Topics include product and process design; facility size, location and layout; demand forecasting; production and work force planning; quality control; and facilities maintenance. Formulation of problems for solution by the computer is an integral part of the course.

BUS 558. Organizational Behavior (3) Prerequisite: Business 550. An examination of the persistent human problems in organizations including motivation, resistance to change, interpersonal and intergroup conflict, managing superior/subordinate relations. This course incorporates ideas from the behavioral sciences to provide a foundation for identifying and solving the human side of an organization's operations. Case studies are emphasized.

BUS 565. Current Issues in Business (1-1-1) Current and emerging issues which affect and are affected by business. Topics focus on three major categories: (1) International Business; (2) Communications and Technology; and (3) Business Trends and Developments. At least three (3) hours are required and each candidate must include at least one (1) hour in each of the above categories.

BUS 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

BUS 595. Corporate Policy and Strategy (3) Prerequisite: To be taken in the final year of the candidate's program of study. An integrative course focusing on factors considered by top-level executives in formulating both short-term and long-term corporate strategy. Particular attention is directed toward analysis of business trends, development of corporate strengths, and formulation of policies and plans. Involves extensive use of case analysis.

ECONOMICS

ECN 520. Economic Analysis I (3) Prerequisite: The mathematics of calculus. Economic analysis of demand, cost, resource allocation, and decision making in alternative market structures. The impact of fiscal and monetary policy on the decision making process is also examined and analyzed.

ECN 521. Economic Analysis II (3) Prerequisite: Economics 520 and Business 503. An examination of the economic environment in which businesses make decisions. Topics include monetary and fiscal policy as they affect the availability and cost of funds and the effect of government regulation and tax policy on firm investment decisions. Particular attention is paid to the factors affecting current

and future inflation, national output, and to business decision making in an integrated world-wide economy.

ECN 526. International Trade and Finance (3) Prerequisite: Economics 520 and Finance 535. A study of the principles underlying world trade, exchange rate adjustments, balance of payments analysis, international financial markets, direct foreign investment, the international monetary system and the new international economic order. Discusses U.S. commercial policy, transnational corporations, international joint ventures, economic integration, preferential treatment and world-wide trading practices.

ECN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

FINANCE

FIN 535. Managerial Finance (3) Prerequisite: Accounting 501 and Economics 520. Financial decision-making in the modern business organization. Topics include the acquisition and use of funds, capital budgeting, cost of capital, capital asset pricing, portfolio analysis and financial statement analysis. Case studies emphasized.

FIN 536. Financial Policy (3) Prerequisite: Finance 535. Conceptual foundations for a theory of financial management, the structure of major areas of financial management and the theoretical content and validity of formalized techniques for improving decision making in the areas of capital budgeting, capital structure, cost of capital, dividend policy and mergers. Case studies will be used to supplement the conceptual foundations. Emphasis will be on the policy decisions and how they affect the valuation of the firm.

FIN 537. Financial Institutions and Markets (3) Prerequisite: Economics 521. Financial institutions as suppliers of funds to the money and capital markets. Comparative financial policies and portfolio considerations of instutions in the context of their changing market environments. The impact of the economic and regulatory climate on portfolio adjustments will also be examined. Cases used extensively.

FIN 538. Investments and Portfolio Analysis (3) Prerequisite: Finance 535. Analysis of financial assets as appropriate investment alternatives. Analysis and evaluation of securities and portfolio management. Securities market information and theories of security selection are examined.

FIN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MARKETING

MKT 545. Marketing Management (3) An examination of the major factors to be considered in the analysis, development, and control of marketing programs. Particular attention is directed to decisions concerning product service offering, price strategy, promotional methods, and the channels of distribution. Emphasis is placed on the role that marketing plays in the overall operation of the firm.

MKT 546. Strategic Marketing (3) Prerequisite: Marketing 545. Major factors considered are setting marketing objectives, identifying market opportunities, selecting target markets, developing new products, formulating integrated marketing strategies, and solving marketing problems. Case analysis is used extensively to foster the application of marketing models and techniques to improve organizational performance.

MKT 548. Promotional Management (3) Prerequisite: Marketing 545. Theories and practices of advertising, sales management, and sales promotion as they relate to the total marketing effort. Attention is directed to sales forecasting, media analysis, and the criteria for evaluating the results of the integrated marketing program. Case study is emphasized.

MKT 549. Marketing Research and Analysis (3) Prerequisite: Business 503 and Marketing 545. An examination of methods of gathering, processing, and analyzing information from the marketplace. Topics covered include problem identification, research design, primary and secondary sources of data, methods of data collection, scaling methods, and sampling techniques. Particular attention is directed to data generation methods and improving marketing decision-making.

MKT 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MASTER OF EDUCATION

The University of North Carolina at Wilmington offers four master's degree programs in professional education: (1) a Master of Education program in Elementary Education, (2) a Master of Education program in Reading Education, (3) a Master of Education program in Special Education, and (4) a Master of Education program in Educational Administration and Supervision with tracks in Educational Administration and Supervision. Program requirements are outlined below.

Elementary Education

The program leading to the Master of Education in Elementary Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Early Childhood Education (K-4), or Intermediate Education (4-6). Within the program, specialties are offered in Early Childhood Education or Intermediate Education. The 36-semester-hour program is comprised of 15 semester hours of conceptual and technical studies common to both specialties, 15 semester hours in the area of specialization, and six semester hours of electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Elementary Core
EDN 500 Human Development and Learning (3)
EDN 502 The School as a Social System (3)
EDN 520 Instructional Development (3)
EDN 523 Research in Education (3)
EDN 530 Curriculum (3)

II. Early Childhood Education Track
EDN 501 Language Development (3)
EDN 531 Study of Teaching in Early Childhood Education (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
EDN 542 The Teaching of Mathematics (3)
Elect *one* of the following two:
EDN 543 The Teaching of Social Studies (3) or
EDN 544 Teaching of Science in the Elementary Schools (3)
Electives Six (6) semester hours.
EDN 599, Thesis, may be selected (6 semester hours)

III. Intermediate Education Track

A. Common Requirements
*EDN 536 Teaching Reading in the Content Areas (3)
EDN 549 Middle School Education (3)

B. Concentration (Select "1" or "2" or "3" below)
1. Language Arts Concentration (Required of teachers with Class "A" Language Arts Concentration)
EDN 537 Linquistics for Teachers (3)
Six (6) semester hours elected from the following:
EDN 501 Language Development (3)
EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
EDN 538 Teaching of Writing (3)
EDN 539 Children's Literature (3)
EDN 540 Adolescent Literature (3)
EDN 547 Integrating Language Arts and Reading: Classroom Practice (3)

2. Math/Science Concentration
Select three (3) courses, 2 from 1 area—either math or science.
EDN 542 The Teaching of Mathematics (3)
EDN 544 Teaching of Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 548 Inquiry—The Method of Science (3)

3. Interdisciplinary Concentration
Select three (3) courses among the following in Elementary Instruction representing three (3) of the following content areas: Language Arts, Social Studies, Mathematics, Science.
EDN 501 Language Development (3)
EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching in Reading/Language Arts (3)
EDN 537 Linguistics for Teachers (3)

EDN 538 Teaching of Writing (3)
EDN 539 Children's Literature (3)
EDN 540 Adolescent Literature (3)
EDN 542 The Teaching of Mathematics (3)
EDN 543 The Teaching of Social Studies (3)
EDN 544 Teaching Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 547 Integrating Language Arts and Reading: Classroom Practice (3)
EDN 548 Inquiry—The Method of Science (3)

C. Electives, Six (6) semester hours

EDN 599, Thesis, may be selected (6 semester hours)

*Field-based activites will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, Research and Education. A comprehensive examination will be required.

Reading Education

The a program leading to the Master of Education in Reading Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification.

The 36-semester hour program is comprised of 12 semester hours of conceptual and technical studies, 18 semester hours in the area of specialization, and 6 semester hours of controlled electives.

Based upon the view of the professional as decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a reading specialization with related language arts options.

I. Reading Education Core
EDN 500, Human Development and Learning (3)
EDN 523, Research in Education (3)
EDN 525, Tests, Measures and Measurement in Education (3)
EDN 530, Curriculum (3)

II. Concentration

A. Group I (3 hours)
Select one: EDN 501, Language Development (3)
EDN 537, Linguistics for Teachers (3)

B. Group 2 (15 hours)
EDN 505, The Reading Process (3)
*EDN 534, Teaching Developmental Reading (3)
*EDN 535, Diagnosis and Teaching of Reading/Language Arts (3)
*EDN 536, Teaching Reading in the Content Areas (3)
*EDN 572, Practicum in Reading (3)

C. Group 3 (6 selected hours)
EDN 538, The Teaching of Writing (3)
EDN 539, Children's Literature (3)

EDN 540, Adolescent Literature (3)
EDN 545, Black Literature and Resources for Teachers (3)
*EDN 547, Integrating Language Arts and Reading: Classroom Practice (3)
EDN 559, Adult Literacy (3)
*EDN 573, The Disabled Reader (3)
EDN 599, Thesis (6)

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed in the required course, Research in Education. A comprehensive examination will be required.

Applicants who do not hold North Carolina Class "A" teacher certification may be admitted. In such cases, the specified undergraduate courses necessary for education certification will be required in addition to the graduate courses.

*Field based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Special Education

The program leading to the Master of Education in Special Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Special Education in at least one area of exceptionality. The program is cross categorical in nature with emphasis in three areas of the mildly handicapped; mental retardation, learning disabilities, and emotionally handicapped. The 36-semester-hour program is comprised of 15 semester hours of conceptual and technical studies, 15 semester hours in the area of specialization, and six semester hours of controlled electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a concentration in special education.

I. Special Education Core
EDN 501 Language Development (3)
EDN 503 Exceptional Child Development (3)
EDN 511 Organizational Behavior (3)
EDN 523 Research in Education (3)
EDN 530 Curriculum (3)

II. Concentration (21 hours)
A. Group 1 (18 hours)
EDN 524 Consultation Strategies for Teachers of Exceptional Children (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 552 Program Development for the Mildly Handicapped (3)
EDN 553 Classroom Management of Mildly Handicapped Children (3)
*EDN 574 Practicum in Special Education (3)

B. Group 2 (3 selected hours)
EDN 504 Issues and Trends in Special Education (3)
EDN 554 Educating Young Handicapped Children (3)
EDN 555 The Mildly Handicapped Adolescent (3)
EDN 591 Independent Study (3)

EDN 595 Selected Topics in Education (related to exceptional children) (3)
EDN 599 Thesis, may be selected (6)

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, Research in Education. A comprehensive examination will be required.

Students who are accepted provisionally (without at least one course in mental retardation, one course in learning disabilities, and one course in emotional disturbance) will need to take these courses before receiving the Master's degree.

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Educational Administration and Supervision

The Master of Education program in Educational Administration and Supervision provides educational leadership training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification. Within the program, specialties are offered leading to certification for the professional roles of principal or curriculum-instruction specialist. The thirty-three semester-hour program is comprised of fifteen semester hours of conceptual and technical studies common to both specialties, twelve semester hours in the area of specialization, and six semester hours of electives.

Based upon the view of the professional as a decison-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Administration-Supervision Core
EDN 502 School as a Social System (3)
EDN 510 Organization and Control of American Education (3)
EDN 511 Organizational Behavior (3)
EDN 521 Decision-Making (3)
EDN 523 Research in Education (3)

II. Administrative Track
EDN 512 Legal Structures in Education (3)
EDN 560 Personnel Administration (3)
*EDN 561 Leadership Application (3)
*EDN 570 Internship in Educational Administration (3)
Electives, Six (6) semester hours

III. Supervision Track
EDN 500 Human Development and Learning (3)
*EDN 520 Instructional Development (3)
*EDN 530 Curriculum (3)
*EDN 571 Internship in Educational Supervision (3)
Electives, Six (6) semester hours

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

No language requirement is stipulated. Competency in appropriate inquiry procedures will be developed through the required courses, EDN 521, Decision Making and EDN 523, Research in Education. A comprehensive examination will be required.

GRADUATE PROGRAM IN EDUCATION

Course Descriptions

EDN 500. Human Development and Learning (3) Designed to provide foundations for decision-making in teaching and education, this course will focus on patterns of physical and social development and on types of learning. Activities will include analysis, discussion, and application.

EDN 501. Language Development (3) Focus on the development of language and its relation to cognitive processes in young children. Theories of language learning and growth are explored in terms of patterns of evidence and in terms of implications for decision-making affecting school children. Concepts associated with language structure, functions, and processes are developed. A variety of language and language-education topics are explored.

EDN 502. The School as a Social System (3) Designed to develop competency in the analysis of social effects upon behavior within the school, this course will include an examination of role, value, power, and control systems within schools and how these systems relate to the changing functions of the family and work place. This information will be related to current issues in the educational system, such as compulsory attendance, level of control, biculturalism, etc.

EDN 503. Exceptional Child Development (3) Prerequisite: Education 501. Designed to provide an understanding of the intellectual, emotional, and physical development of exceptional children. The interplay of biological and environmental factors that produce deviations in development is examined. Organized around a developmental approach to the study of exceptionality that suggests strategies for determining bases of exceptionality. Implications of development differences for the special educator will be stressed.

EDN 504. Issues and Trends in Special Education (3) Designed to focus on emerging directions related to the education of exceptional children. Relevant social, educational, bio-medical, developmental, psychological, and legal issues will be examined as well as implications for the schools.

EDN 505. The Reading Process (3) Prerequisite: Education 523, 525, or consent of the instructor. Develops conceptualization of the process of reading in mature readers and of stages in literary development. Analysis of psychomotor and psycholinguistic parameters of reading, word recognition and sentence processing both for beginning and advanced readers, the task of learning to read, factors affecting reading development, and of schema theories of comprehension.

EDN 510. Organization and Control of American Education (3) Designed to include a study of the roles of agencies involved in the governance of education, sources of finance and supportive services. Activities will include lectures, simulated exercises and an opportunity to participate in field activities.

EDN 511. Organizational Behavior (3) Designed to develop competancy in the analysis of behavior in educational organizations, this course will include an examination of organizational theory with particular attention to the utility of social systems theory as a basis for effective educational leadership. A variety of ac-

tivities including simulation and case studies will be used to demonstrate application in school settings.

EDN 512. Legal Structures in Education (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge of constitutional, statutory, and case law related to education and knowledge of state and local governmental structures and to develop skills and abilities in analysis and design of educational practices for consistency with established legal principles. The course content will include a study of the U.S. and N.C. constitutions, selected state and federal court cases, the N.C. system of educators, federal statutes related to education, and the structures of local governments. Activities will include lecture, discussion, library research, and group and individual analysis of existing school system practices and design of legally-consistent practices.

EDN 520. Instructional Development (3) Designed to provide students with the knowledge and skill required for designing and evaluating instructional plans, units, and educational programs. This course will include concern for such topics as types of learning, learning hierarchies, task analysis, educational goal and objective formulation, assessing learner entry skills, and evaluation. The course will include a variety of activities with a strong emphasis on group problem solving and individual projects. Students will undertake projects relevant to their in-school experience.

EDN 521. Decision-Making (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge, skills, and abilities in identification and analysis of decision situations and decision alternatives, in procedures for choice, and in design and analysis of educational information system. Contents will include study of alternative decision-making models, procedures for choice, evaluation of educational programs, and educational information systems. The activities will include lecture, discussion, and simulated and real applications to decision situations in schools systems.

EDN 522. Educational Media (3) Designed to provide students with the theory and practical skills necessary for selecting, producing, and evaluating mediated materials in education. Students will learn to produce a variety of audio-visual materials including graphics, transparencies, slides, video- tapes. In addition, there will be considerable emphasis on photography including developing and printing. Instruction in operating and troubleshooting equipment will also be treated. The primary goal of this course is to develop confidence and competency in the media area. This course will include lectures and a workshop format. Students will produce a variety of mediated projects during the course.

EDN 523. Research in Education (3) Designed to develop research competencies required for interpretation and critique of research report and for design and conduct of research for educational decision-making. Contents will include measurement, problem identification and analysis, research design, selected statistical analysis procedures, data interpretation and reporting and research critique. Activities will include lecture, discussion, research critique, simulated and actual proposal development, simulated report development, and computer analysis of actual data.

EDN 524. Consultation Strategies for Teachers of Exceptional Children (3) Designed to develop communication skills relevant for the decision-making roles

of the special education teacher. Emphasis on group dynamics, conflict resolution, generation of alternative solutions, interview procedures, parent conferences, team meetings, orientation of general educators, and mainstreaming handicapped children.

EDN 525. Tests, Measures, and Measurement in Education (3) Prerequisite: Education 201, Education 520, or approval of instructor. Design to develop a conceptual framework for obtaining and interpreting data about behavioral and psychological traits of persons which may be needed for a variety of purposes. Particular attention will be given to developing understanding of validity of measures for the intended purposes and for assessing the trait which is intended to be measured. Students will learn to make judgements of validity of testing systems and, to develop valid tests and testing systems. Mathematical and statistical tools for analyzing items, tests, and scores will be studied, and students will practice their use. Students will learn to use computers for test development, test administration, and to analyze records of performance on tests.

EDN 530. Curriculum (3) Develops a conceptual framework for understanding curriculum in relation to other aspects of educational systems. Students learn to evaluate curricula in terms of structural elements, underlying value orientations, and assumptions about subject matter and about learning. Introduction to issues of curriculum change, implementation, evaluation, development, and design.

EDN 531. Study of Teaching in Early Childhood Education (3) Prerequisite: Education 500, 501, 502, 520, or department approval. Designed to improve teaching performance and to develop competencies in the critical analysis of teaching in the early grades, this course will include an in-depth study of teaching in the early grades by observation and participation using different interaction analysis formats for studying and analyzing teaching.

EDN 532. Comparative Studies in Early Childhood Education (3) Prerequsite: Education 502 or approval of department. Designed to provide information for comparing and contrasting preschools from an international perspective, this course will include an in-depth cross-cultural survey of early childhood education in selected countries. The history of philosophical thoughts, the political and socio-economic changes and research efforts from these selected countries of interest to American early childhood educators will be studied and discussed.

EDN 533. Early Childhood Education in Focus (3) Prerequisite: Education 500, 501, 502, or approved of department. Designed to develop the ability to look to current trends and issues in early childhood education. Objectively, this course will include critical analysis of present exemplary programs, practices, resources, and legislation related to early childhood education. The student will be involved in identifying unresolved issues in early childhood education and writing position papers about these issues.

EDN 534. Teaching Developmental Reading (3) Develops understandings of an effective classroom reading program. Reviews practices, materials, and approaches for teaching basic reading skills through the analysis of research literature and critique of personal beliefs and practices.

EDN 535. Diagnosis and Teaching of Reading/Language Arts (3) Prerequisite: Education 501 and 530. Designed for the elementary and reading teacher, this

course focuses on building the skills and understanding needed to become a diagnostic teacher. In addition to the review of skills sequences in reading/language arts, the student will study a variety of disgnostic material and techniques will strengthen knowledge about the skills in the selection of appropriate materials, techniques and methods in teaching. Development of informal tests as well as experiences in actual diagnosis will be required.

EDN 536. Teaching Reading in the Content Area (3) Designed for the middle grades teacher of math, science, social studies, and English, this course will identify those skills of reading needed in all content areas as well as those specific to each content area. Emphasis will be placed on the study of strategies useful in teaching reading in the content area classroom. Besides the study of appropraite commercial materials, students will be required to develop their own materials useful for teaching reading in a particular content area.

EDN 537. Linguistics for Teachers (3) A study of current American English and of the principles of scientific analysis of spoken and written language; emphasis on understanding that nature and structure of the language that students bring into the classroom.

EDN 538. The Teaching of Writing (3) Intensive review of principles of grammar, rhetoric and usage (approximately ½ of course), followed by projects using and evaluating actual samples (both expository and creative) from school-age writers; attention also to methods of instruction and to the range, usefulness and availability of classroom materials.

EDN 539. Children's Literature (3) Prerequisite: Education 500, 501, 502, 520, or approval from department. Designed to develop skills and understanding which would improve teachers' competencies in formulating sound literature programs, this course will include an in-depth study of the functions of children's literature and the different criteria for evaluation of the various types of literature suitable for children at various developmental levels. Areas of influence that are producing change such as paperbacks, minorities in children's books, sexism and censorship will be discussed.

EDN 540. Adolescent Literature (3) A comprehensive study of literature appropriate for the middle grades, its value in the school curriculum and its importance in fulfilling intellectual, emotional, and cultural needs of young people. Evaluation and bibliography are emphasized; classroom techniques and the use of related material are covered. Projects related to instructional preparation and student activities are required.

EDN 542. The Teaching of Mathematics (3) Prerequisite: Education 500 and 530. Focus on materials and methods for teaching mathematics in grades K-9, with emphasis on the logical, psychological, and sociological foundations of mathematics education. A survey of curricula appropriate at the K-9 level. Library research in current topics related to the teaching of mathematics.

EDN 543. The Teaching of Social Studies (3) Prerequisite: Education 500, 501, 530. Special emphasis is given to the various techniques and methods to be used in the teaching of social studies. Teaching strategies including simulation, injury and value clarification will be explored through research, observation, demon-

stration, and, when applicable, field trips. Each student will prepare a major unit of study which will require both individual and group participation.

EDN 544. Teaching of Science in the Elementary School (3) To assure that science at the elementary school level is taught from a theoretical and conceptual base, content will include studying theories and concepts related to science taught at the elementary school level. Activities will include development of successful methods of teaching through the use of individual and group projects. Opportunities will be provided to field test methods proposed. Materials needed for a successful science program and sources from which these materials may be secured will be discussed.

EDN 545. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of material published for classroom use in the public schools and the authors who have made contributions to this field.

EDN 546. Diagnosis and Remediation in Mathematics (3) Prerequisite: Education 500, 530, and 542. The study and application of teaching mathematics in the diagnostic mode. Included will be a historical review of diagnostic procedures in mathematics, a survey of mathematics curriculum, an examination of the theoretical models of diagnosis and of materials useful to the classroom teacher or clinician. Intensive work with children experiencing difficulty in mathematics will be required.

EDN 547. Integrating Language Arts and Reading: Classroom Practice (3) Develops student ability to conceptualize and implement a classroom communication arts program. Analyzes patterns of learning and practices in teaching language arts processes and skills. Examines strategies for fostering language arts growth through integrated language activities. Field activity required.

EDN 548. Inquiry — The Method of Science (3) The course assumes initial level competency in the curriculum and methods of science. The course will focus on the conceptualization of and rationale for using the inquiry method of teaching science. Students will participate in activities taken from a variety of science curriculum programs for elementary through senior high school. The course will also provide students with an opportunity to acquire and practice the skills needed to utilize the inquiry method and to guide scientific investigations at K-12 levels. Methodology and types of activities appropriate to the student's level of teaching will be selected.

EDN 549. Middle School Education (3) Prerequisite: Education 500 and 502. Education 530 recommended. Study of educational programs for upper elementary education (junior high, middle school, intermediate school). Review of learning, physical, and social characteristics of "transescents" and historical and current approaches to their education. Comparison and contrast of curriculum, instruction, administrative and organizational features of exemplary and typical intermediate, middle and junior high schools.

EDN 550. Nature and Needs of Exceptional Children (3) This course is designed to provide a comprehensive survey of the major categories of exceptional children. Emphasis will be on characteristics, etiology, educational procedures, and psycho-social implications. Activities will include lecture, discussion, and prac-

tical applications of concepts and strategies. This course is only open to elementary majors and administration/supervision majors.

EDN 552. Program Development for Mildly Handicapped (3) Prerequisite: Education 502 and 530. Designed to develop an understanding of how to develop and teach relevant curriculum to handicapped children through systematic instruction. Focus on characteristics and etiology, assessment, planning, implementaton of instructional plans, and selection and utilization of appropriate methods and materials for a wide range of curricular areas.

EDN 553. Classroom Management of Mildly Handicapped Children (3) Designed to develop knowledge and skills, necessary for planning and implementing various classroom management strategies. Focus on observation and measurement of behaviors, design of classroom management strategies, utilization of strategies in the special education and regular classroom environment.

EDN 554. Educating Young Handicapped Children (3) Overview of early childhood education for the handicapped. Trends toward early identification of handicapping conditions and appropriate intervention strategies will be examined. Methods for dealing with developmental delays in regular and special preschool settings will be studied. Working with parents and primary caretakers of young handicapped children will be emphasized.

EDN 555. The Mildly Handicapped Adolescent (3) Designed to provide a basis for understanding the educational needs of mildly handicapped adolescents. The following topics will be covered during the course: the impact of handicapping conditions on the developmental tasks of adolescence; strategies for the remediation of deficits in basic skills; the interrelationship of vocational intervention; the current status of educational programs for the mildly handicapped.

EDN 559. Adult Literacy (3) Examines the definition of illiteracy and the problem of adult literacy. Reviews approaches to dealing with the problem from philosophic, pedagogical, and sociological bases. Reviews the many movements to overcome the problem in the United States and abroad. Provides students with ideas, methods, and materials for teaching adults to read.

EDN 560. Personnel Administration (3) Prerequisite: Education 502, 510, 511, 521, or permission from department. Designed to develop knowledge, skills, and abilities in specification and analysis of roles and role performance, and in selection, supervision, and utilization of personnel resources. The contents will include educational roles, criteria for role performance, personnel selection criteria and procedures, personnel policies and practices, and labor relations. Activities will include lecture, discussion, analysis and design of simulated and actual personnel procedures, and a variety of simulated personnel related tasks.

EDN 561. Leadership Applications (3) Prerequisite: Education 502, 510, 511, 521, or permission from department. Designed to develop skills and abilities in analysis, initiation, establishment, and maintenance of specific educational procedures. The contents will include specific procedures for scheduling, office management, pupil control, co-curricular program design and management, curricular program design an management, communications, information systems, and budgeting. Activities will include lecture, discussion, visitation, simulated and actual applications, and selected practicum experiences.

EDN 562. Automation in Administrative and Instructional Practices (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge, skills, and abilities required for decision-making about automation of procedures and for design and implementation of automated procedures. The content will include a study of alternative procedures for automation, including computer applications and specific procedures for personnel accounting, scheduling, planning, instruction, and information management. Activities will include lecture, discussion, and a variety of simulated and real design, analysis, and production problems.

EDN 563. Educational Environments (3) Prerequisite: Education 502, 510, 511, or permission from department. Designed to develop knowledge, skills, and abilities in the analysis, design, and change of physical and social environments in education. Contents will include design, organization, control, and effects of physical and social climates of schools and classrooms. Activities will include lecture, discussion, library research, and a variety of group and individual simulated and real design and analysis problems.

EDN 564. Politics and Policy-Making in Education (3) Designed to study the theories, processes, functions, limits, alternatives, goals, and consequences of policy-making as the primary objective of politics in education; evaluation and analysis of policy-making at the local, state and federal levels of education; nature and dynamics of policy-making by local and state school boards, state legislatures and the federal government.

EDN 570. Internship in Educational Administration (3) Designed to provide experience related to major aspects of the role of principal. Observation will be made of principals and assistant principals and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the principal's role in task areas such as staff development, supervision and evaluation, community relations and student development. Additional topics of investigation will include such adminstrative task areas as budget development, budget allocation, fiscal management, reporting and instructional scheduling. Students with experience in the role of principal or assistant principal may request waiver of this course requirement.

EDN 571. Internship in Educational Supervision (3) Designed to provide experiences related to major aspects of the role of supervisor. Observations will be made of supervisors and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the supervisor's role in task areas such as staff development, teacher relations, principle relations, and relations with outside consultants. Additional topics of investigation will include such supervisory task areas as program planning, curriculum review, budget development, budget allocations, fiscal management, and reporting. Students with experience in the role of supervisor may request waiver of this course requirement.

EDN 572. Practicum in Reading (3) Prerequisite: Education 535. Designed to provide a supervised practicum for the diagnosis and remediation of typical disabled readers. Students will administer diagnostic tests, plan a remediation program, remediate a remedial reader, and generate an educational report of the reading program, results and prognosis. Consultation with appropriate school, agency, and family members is expected.

EDN 573. The Disabled Reader (3) Prerequisite: Education 535, 572. Designed to develop competence and performance in testing teaching, and designing reading/learning programs for the severely disabled reader. Appropriate referral services will be identified. Consultation skills will be developed. Supervised practicum required.

EDN 574. Practicum in Special Education (3) Designed to provide a supervised internship in a cross-categorical special education setting. Provides experiences in diagnosing individual needs, developing educational programs, instructing mildly handicapped students, designing and implementing classroom management techniques, and consulting with teachers, administrators, parents and other professionals.

EDN 591. Independent Study (3) Prerequisite: Fifteen semester hours of graduate credit and permission of instructor. Intensive study of topic in the student's area of specialization.

EDN 595. Special Topics in Education (1-4) Seminars of varying duration andd credit may be arranged for the study of special topics relevan to student needs not served by established graduate courses. Seminars of this nature may be offered only upon approval of the Director of Graduate Studies. A maximum of six semester credit hours may be counted toward degree requirements.

EDN 599. Thesis in Education (1-6) Prerequisite: Education 523, at least 18 additional hours toward master's degree, and permission of instructor. Intensive study of topic selected by student and approval by thesis committee. Includes definition of problem, review of related literature, application of appropriate methodology, and interpretation of results and conclusions. Oral presentation and defense of thesis required.

MASTER OF SCIENCE IN GEOLOGY

The University of North Carolina at Wilmington offers a program of study leading to the Master of Science degree in Geology. The specific goals of the program are to provide advanced research and educational opportunities in the geological sciences, and to prepare geologists for solving contemporary problems in sedimentary geology. Specific objectives of the program are: 1) to develop research competence in sedimentary geology, 2) to develop professional competence in the assessment of water, energy and mineral resource potentials, 3) to develop a level of research competence in geology that encourages continued effort toward the doctoral degree, and 4) to provide the scientific community with meaningful research data on marine, coastal, and coastal plains geology.

Degree Requirements

1. The program requires at least 30 semester hours of graduate credit, with a maximum of six credit hours for the thesis and three credit hours for seminars. A maximum of six semester hours of graduate credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to "B" or better. A minimum of 24 semester hours of graduate courses must be completed at UNCW; this includes both course work and thesis.

2. Each student must successfully complete a comprehensive qualifying oral examination which is administered no earlier than the semester the student is enrolled in final course work.

3. Each student must complete an approved course of study within five years of the date of first registration for graduate study.
4. Each student must present and defend a thesis, based on original research, acceptable to the committee, prior to graduation. The thesis defense is open to the public.

GRADUATE PROGRAM IN GEOLOGY

Geology Course Descriptions

GLY 510. Ancient Sedimentary Environments (3) Prerequisite: Petrology, stratigraphy, field camp. Survey of ancient sedimentary environments with an evaluation of the criteria used in their recognition in the rock record. Specific ancient sedimentary sequences are examined and compared to their modern counterparts. Three lecture hours per week. Field trips.

GLY 511. Clastic Petrology (3) Prerequisite: Optical mineralogy. Classification and description of sandstones and mudrocks and evaluation of their diagenesis. Application of principles to economic deposits. Laboratory exercises concentrate on microscopic and X-ray techniques of analysis. Two lecture and three laboratory hours per week. Field trips.

GLY 512. Carbonate Petrology (3) Prerequisite: Optical mineralogy. Ancient carbonate rocks and modern carbonate depositional environments. Evaluation of the diagenetic processes of cementation, dolomitization and silicification, and the relationship of carbonate rocks to economic deposits. Two lecture and three laboratory hours per week. Field trips.

GLY 515. (Marine Biology 555) Methods in Sedimentology (3) Prerequisite: Petrology. A survey of the parameters of sedimentation. Emphasis on the processes involved in the formation of sedimentary rocks, including their origin, transport, deposition and lithification of rock-forming minerals. Techniques of physical and chemical analyses of sediments are stressed. One lecture and six laboratory hours per week. Field trips.

GLY 531. Micropaleontology (4) Prerequisite: Invertebrate paleontology or consent of instructor. Paleobiology and geological history of micro-organisms, emphasizing the classification and systematics of major microfossil groups. Three lecture and three laboratory hours per week. Field trips.

GLY 532. (Marine Biology 532) Biogeography (3) Prerequisite: Consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic, and evolutionary events in the past. Three lecture hours per week.

GLY 533. Paleoecology (3) Prerequisite: Invertebrate paleontology or consent of instructor. Principles of ecological faunal analysis as primarily applied to the marine fossil record. Emphasizes the integration of form, and function, taphonomy, and community development through time, and sedimentology/stratigraphy as a synthetic approach to paleoenvironmental, paleobiological and evolutionary analyses. Applications to biostratigraphy are considered. Three lecture hours per week. Field trips.

GLY 535. Stratigraphic Paleontology (3) Prerequisite: Invertebrate paleontology, stratigraphy. Analysis of the stratigraphic distribution of invertebrates emphasizing the Cretaceous and Cenozoic fossil record; application of biostratigraphic principles and techniques in the development of high resolution relative time scales; practical experience in the stratigraphic aspects of paleontology through field, laboratory and literature research. Two lecture and three laboratory hours per week. Field trips.

GLY 540. Regional Geology of North America (3) Prerequisite: Structural geology, stratigraphy. Survey of the rocks, structures, natural resources, and tectonic histories of different regions of North America, such as the Precambrian shield, Appalachians, and Cordillera. Syntheses of theories of orogenesis. Three lecture hours per week.

GLY 542. Structural Evolution of Continental Margins (3) Prerequisite: Structural geology, stratigraphy. Structural characteristics and tectonic frameworks of pasive and active continental margins. Comparison of modern settings and ancient analogs in the rock record. Three lecture hours per week.

GLY 550. Marine Geology (4) Prerequisite: Consent of instructor. Topography, sediments, structure and geologic history of the marine and estuarine environment. Three lecture and three laboratory hours per week. Field trips.

GLY 552. Coastal Sedimentary Environments (4) Prerequisite: Consent of instructor. Sedimentary processes and environments of the world's coastal systems. Emphasis on river deltas, estuaries, bays, salt marshes, barrier islands and associated inlets. Ice-bound as well as rocky coastlines are also examined. Three lecture and three laboratory hours per week.

GLY 555. Ocean Basin Sediments (3) Prerequisite: Consent of instructor. Classification and recognition of ocean basin sediments and their spatial distribution within the sedimentary record. Additional emphasis on the effects of ocean bottom and near bottom currents in the erosion, transport and deposition of the terrigenous and biogenic components. Techniques of physical and chemical analysis are stressed. Two lecture and three laboratory hours per week.

GLY 560. Advanced Stratigraphy (3) Prerequisite: Invertebrate paleontology, stratigraphy, petrology. Stratigraphic analysis of the geologic history of North America and parts of other continents. Emphasis on interpreting lithologic assemblages and stratigraphic relations in terms of modern tectonic-depositional models. Two lecture and three laboratory hours per week.

GLY 561. Coastal Plains Geology (3) Prerequisite: Invertebrate paleontology, stratigraphy, petrology. Origin and development of Gulf and Atlantic Coastal Plains with emphasis on stratigraphy, structure, geomorphology and tectonic history. Three lecture hours per week. Field trips.

GLY 563. Seismic Stratigraphy (3) Prerequisite: Geology 510 or consent of instructor. Seismic interpretation as a means of examining the stratigraphic framework of basins and continental margins. Relationships between seismic data and depositional systems. Introduction to obtaining and processing reflection data and sound propagation. One lecture and six laboratory hours per week.

GLY 571. Sedimentary Geochemistry (3) Prerequisite: one year each of chemistry, physics and calculus. Application of geochemistry to the formation and diagenesis of sediments and sedimentary rocks. Examination of mineral precipitation, sediment cementation, metasomatism and chemical erosion. Three lecture hours per week.

GLY 580. Economic Mineral Deposits (3) Prerequisite: Mineralogy, petrology and one year of chemistry. Description of metallic and nonmetallic mineral deposits that characterize island arcs, spreading centers, and intracontinental areas. Magmatic, hydrothermal, and sedimentary proesses of ore formation. Three lecture hours per week. Field trips.

GLY 590. Topics in Sedimentary Geology (1-3) Prerequisite: Consent of instructor. Advanced special topics in sedimentary geology through lectures, seminars, laboratory or field experience.

GLY 591. Directed Independent (1-3)

GLY 595. Seminar (1) Prerequisite: Consent of instructor. Discussion of selected areas in sedimentary geology. Two hours per week.

GLY 599. Thesis (1-6)

MASTER OF SCIENCE IN MARINE BIOLOGY

The University of North Carolina at Wilmington offers a program of study leading to a Master of Science degree in Marine Biology. The program is designed either (1) to prepare students for further graduate work leading to a Ph.D. degree elsewhere; (2) to prepare students as professional biologists or as managers of coastal and marine resources, trained to deal with contemporary problems in the environment; or (3) to upgrade the effectiveness of classroom instruction by public school teachers. The curriculum of the program allows students to elect one of three tracks: Marine Biology, Biological Oceanography, or Coastal Biology. Within each track, a student and his/her faculty committee have the necessary latitude to develop a plan of study which will meet the particular needs of the individual.

Degree Requirements

1. Programs leading to the Master of Science degree require a minimum of thirty semester hours of graduate study. A maximum of 6 semester hours of credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to "B" or better. A minimum of 24 semester hours of graduate study must be completed in residence.

2. The student must demonstrate competency in a foreign language: French, German, Spanish, or Russian. A computer language, e.g. PL/1, FORTRAN, or BASIC, may be substituted for the foreign language requirement upon the commitee's approval.

3. The student must successfully complete a qualifying examination consisting of two parts: a written comprehensive examination based upon prior course work, and a comprehensive oral examination administered by the committee.

4. Each student will present a thesis, based on original research, acceptable to the committee, prior to graduation.

5. Each student must complete an approved course of study within five years of the date of first registration for graduate study.

Requirements for the Marine Biology track:

A minimum of six hours from the following:
MBY 560 Estuarine Biology (3)
MBY 562 Coastal Ecosystems (3)
MBY 564 Biological Oceangraphy (3)
MBY 569 Advanced Oceanography (3)
and:
MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 599 Thesis (3-6)
A minimum of 15 hours of electives of which at least 12 hours must be in biology courses; at least 3 hours must be chosen from each of the following categories: physiology, anatomy-morphology, developmental biology. No more than 3 credits of MBY 591 (Directed Independent Study) may be used.

Requirements for the Biological Oceanography track:

MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 564 Biological Oceanography (3)
MBY 569 Advanced Oceanography (3)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 596 Seminar at Sea (1)
MBY 599 Thesis (3-6)
A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Independent Study) may be used.

Requirements for the Coastal Biology track:

MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 560 Estuarine Biology (3)
MBY 562 Coastal Ecosystems (3)
MBY 592 Seminar at the Coast (1)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 599 Thesis (3-6)
A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Indpendent Study) may be used.
Deficiencies will be ascertained by the student's committee and will be remedied prior to graduation.

GRADUATE PROGRAM IN MARINE BIOLOGY

Marine Biology Course Descriptions

MBY 501. Introduction to Scientific Research and Presentation (1) Scientific manuscript preparation and communication techniques: manuscript format, graphics, design of experiments, library use, and writing techniques. One lecture and one laboratory hour per week.

MBY 510. (Statistics 410) Applied Statistical Methods (3) Prerequisite: Credit in statistics. After a review of elementary statistics, the following major areas are

studied: nonparametric methods, analysis of variance and experimental design and regression analysis. Three hours each week.

MBY 512. (Biology 410) Electron Microscopy and Cell Ultra Structure (3) Prerequisite: Course in cell physiology or permission of instructor. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and functon of cell organelles in plants and animals. Three hours per week.

MBY 512-51. (Biology 410-51) Electron Microscopy Laboratory (1) Corequisite: Marine Biology 512 and permission of instructor. Techniques for fixing, embedding and thin section of tissue will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours per week.

MBY 515. Membrane and Neurobiology (4) Prerequisite: Course in physiology or permission of instructor. Introduction to the principles of diffusion, osmosis, active transport and membrane biophysics with emphasis on cellular and whole animal ionic and osmotic regulation, and neurophysiology. Emphasis will be placed on marine invertebrates and vertebrates. The laboratory will give experience in ion measurements, radioisotope handling, flux studies, and neurophysiological techniques. Three lecture and three laboratory hours each week.

MBY 520. (Biology 415) Vertebrate Histology (4) Prerequisite: Credit in biology. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

MBY 525. Marine Microbiology (4) Prerequisite: Course in microbiology or permission of instructor. Concepts of structure and function of microbes, nutrition, metabolism adaptation and genetics as related to the marine environment. The laboratory will center on techniques of studying microbes and their ecology, and the systematics of important micro-organisms. Three lecture and three laboratory hours each week.

MBY 530. Invertebrate Evolution (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. Critical analysis of current theories on the origin of the invertebrates and on origins of invertebrate phyla. The course will include a review of the historical development of evolutionary thought concerning invertebrate phylogeny, both from a neontological and palenontological viewpoint. Relevant data from modern studies in embryology, larval development, comparative morphology, functional morphology and serology will be stressed. Each student will be required to prepare a summary paper on the status of knowledge for a selected invertebrate group. Three hours each week.

MBY 531. Population Genetics (3) Prerequisite: Genetics. Basic principles of the dynamics of genes within populations. Topics include fitness, polymorphism, genetic equilibrium, and the effects of non-random mating and selection. Three hours each week.

IBY 534. (Biology 466) Advanced Ecology (4) Prerequisite: Ecology. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

IBY 535. (Biology 435) Molecular Genetics (3) Prerequisite: A course in genetics, biochemistry or cell physiology. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein systhesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity synthesis and function. Three lecture hours each week.

IBY 536. (Biology 436) Recombinant DNA Techniques (2) Prerequisite: A course either in genetics, physiology, or biochemistry. Basic principles and techniques of gene cloning using all three major types of cloning vectors: lambda phase, plasmids, and the single stranded DNA phage M13. Provdies hands- on experience in recombinant DNA methodology. One lecture and four laboratory hours each week.

IBY 537. (Biology 457) Ichthyology (4) The systematics, evolution, and natural history of fishess, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

IBY 538. Cytogenetic Methodology (2) A laboratory course introducing the techniques necessary to study and analyze the chromosomes of a variety of organisms including plants and animals. One four-hour laboratory each week.

IBY 540. (Biology 465) Biochemistry (3) Prerequisite: Organic Chemistry. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids;. enzyme kinetics; bio-energetics, regulatory mechanisms. Three hours each week.

IBY 544. (Biology 440) Developmental Biology (4) Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environnmental control of develoment. Plant and animal systems studies in modern research literature will be discussed. Three lecture and three laboratory hours each week.

IBY 545. (Biology 445) Marine Physiology (4) Introduction to physiological systems characteristic of marine vertebrates and invertebrates. Emphasis is placed on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion and movement. Three lecture and three laboratory hours each week.

IBY 550. Vertebrate Systematics (4) Prerequisites: Two of the following: Ornithology, Herpetology, Mammalogy, Ichthyology. A detailed study of the processes of speciation in the vertebrates, including the theoretical and pragmatic approaches. Nomenclatorial procedures will be discussed. Three lecture and three laboratory hours each week.

IBY 551. Advanced Vertebrate Biology (2) Prerequisite: Permission of instructor. Individualized instruction in the identification, classification, and habitats of the

terrestrial vertebrates of the coastal zone. This course will emphasize field methodologies and is designed to fill gaps in each student's knowledge of the classes of terrestrial vertebrates. Four laboratory hours each week.

MBY 553. Natural History of Intertidal Organisms (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. A study of the strategies adopted by major invertebrate groups inhabiting the itertidal zone. Field trips will permit the student to observe and identify relationships between vertical ranges of intertidal organisms and local biological and physical parameters that define zonation. An individual or group project on some aspect of recruitment, site preference, succession, or competition in intertidal populations will be required. Two lecture hours and field work.

MBY 554. (Biology 452) Mammalogy (4) A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptations, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lectures and three laboratory hours each week.

MBY 555. Methods in Sedimentology (4) Prerequisite: Introductory course in geology or permission of instructor. An introduction to the most important analytical techniques and research procedures that are currently used for studying sediments. Techniques included are: size analysis; grain shape; grain surface texture; textural analysis; compositional analysis; and chemical analysis. Two lectures and two-hour laboratories each week.

MBY 556. (Biology 456) Ornithology (4) An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

MBY 557. (Biology 454) Herpetology (4) A study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

MBY 558. Biology of Recreational and Commercial Fishes (3) Prerequisite: Basic course in ichthyology or permission of the instructor. Topics will broaden the student's knowledge of management of economically and socially important aquatic resources through discussions on ecology and fisheries oceanography, aquaculture, fish diseases and contemporary research. The emphasis will be upon fishes, but the course will include information on shrimp, molluscs, whales and other marine species. Two lecture and three laboratory periods each week.

MBY 559. (Biology 481) Marine Invertebrate Zoology (4) A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

MBY 560. Estuarine Biology (3) Prerequisite: Course in general ecology or permission of instructor. A study of the physical, chemical and biological interactions of the estuarine area: The effect of currents and circulation upon biological and chemical gradients; the role of nutrients in organic cycles, primary and secondary productivity and standing crops; energy transfer, stability and stresses in marine communities; pollution indicator species and endangered species in the estuarine

environment. A special emphasis will be placed upon analytical techniques in gathering and processing estuarine data and in evaluation of local estuaries with respect to contemporary management planning. Two lecture and three laboratory hours each week.

IBY 561. Barrier Island Ecology (3) Prerequisite: Course in general ecology or permission of instructor. A survey of the dune forest and tidal marsh flora and vegetation. Topics will include descriptive, physiological and applied aspects of barrier island plants. Special topics include dune environment, halophytes, salt-spray effects, marsh energetics and nutrient cycling. Quantitative techniques will be used in characterization of island communities. Two lecture and three laboratory hours each week.

IBY 562. Coastal Ecosystems (3) Prerequisite: Course in general ecology or permission of instructor. Ecology of the major plant communities on the Coastal Plain. Systematics, structure and functions of the coastal community will be emphasized. Biotic and environmental sampling and comparison techniques will be emphasized. Two lecture and four laboratory hours each week.

IBY 563. Physical Oceanography (4) Dynamics and physics of the ocean with emphases on the physical properties of sea water, flow dynamics, and circulation. The laboratory will emphasize instrumentation, data collection, and analyses of marine dynamics. Three lecture and three laboratory hours each week.

IBY 564. Biological Oceanography (3) Encompasses a spectrum of special topics on factors that control the distribution patterns of marine organisms. The topics include: identification and evolution of marine biomes; seasonal, temporal and spatial trends in temperate marine environment; tropical vs polar marine productivity; temperature of water masses and biological implications with emphasis on gulf stream biology; pelagic and benthic community structure; marine food chain and trophodynamics; models of energy flow and budgets; biology of outer continental shelf; recruitment mechanism as influenced by natural and man-made causes. Special emphasis will be placed on methods of data gathering and theories behind advanced biological oceanographic techniques. Each student will specialize in a selected topic and will present a report at the end of the term. Three hours each week.

MBY 565. (Biology 458) Fisheries Biology (4) Prerequisite: Ichthyology, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

MBY 566. Behavioral Ecology of Reef Fishes (3) Prerequisite: Course in ichthyology or permission of instructor. An ecological and ethological approach to the study of reef fish biology. Current theories and problems dealing with the ecological niche, competition, social systems, and population biology. Two lecture and three laboratory hours each week.

MBY 567. (Biology 460) Limnology (4) Prerequisite: A laboratory course in inorganic chemistry or permission of instructor. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

MBY 569. Advanced Oceanography (3) Prerequisite: An introductory descriptive oceanography course. This course will consider mechanisms and dynamics of the ocean: the physical processes propelling oceanic currents, the reception and transmission of energy, and its influence upon living systems, statics and dynamics of waves, chemical distribution in the sea and their influence upon living marine organisms, dynamics of fertility and productivity in the marine environment. Two lecture and three laboratory hours each week.

MBY 570. (Biology 468) Planktonology (4) Prerequisite: Invertebrate Zoology or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

MBY 572. (Biology 472) Marine Phycology (4) An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

MBY 574. (Biology 475) Plant Taxonomy (4) Prerequisite: Introductory Botany. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of Southeastern North Carolina. Two lecture and four laboratory hours each week.

MBY 575. Taxonomy of Aquatic and Wetland Plants (3) Prerequisite: Introductory Taxonomy or consent of instructor. Discussion, collection, and identification of vascular plants found in the aquatic and wetland habitats of coastal North Carolina. Extensive field work and individualized instruction in collection and identification techniques. Two lecture and three laboratory hours each week.

MBY 576. (Biology 474) Comparative Morphology of Vascular Plants (4) A detailed study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

MBY 577. Marine and Estuarine Mycology (3) Prerequisite: Mycology or permission of instructor. An in-depth survey of the mycoflora of oceanic and estuarine waters with emphasis on collecting and culturing techniques. An in-depth treatment of taxonomy and ecology of important fungal groups will also be given. Two lecture and three laboratory hours each week.

MBY 580. (Biology 480) Field Studies in Biology (1-6) A research experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

MBY 585. (Biology 485) Special Topics in Advanced Biology (1- 6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

MBY 588. (Chemistry 476) Chemical Analysis of Natural Waters (2) Prerequisite: Permission of instructor. Evaluation of common chemical methods for the analysis of complex natural waters is included. Appropriate use of these methods is demonstrated. Analyses studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended materials, and dissolved metals. One lecture and three laboratory hours each week.

MBY 589. (Chemistry 475) Chemical Ocenography (3) Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week.

MBY 591. Directed Independent Study (3)

MBY 592. Seminar at the Coast (1) Participation in planning and conducting a series of field exercies in the coastal zone of North Carolina.

MBY 593. Colloquium in Marine Biology (1) Investigation and discussion of selected topics and current issues through the interaction of students, faculty, and expert guest lecturers.

MBY 595. Seminar in Marine Biology (1) Discussion of selected topics in marine biology.

MBY 596. Seminar at Sea (1) Participation in pre-cruise planning and a biological oceanographic cruise to obtain practical knowledge on methods of sampling.

MBY 599. Thesis (1-6)

FACULTY

FACULTY

Sheila Anne Adams, *Associate Professor of Management,* B.S., M.B.A., University of Nevada-Reno; Ph.D., University of Washington.

Louis Henry Adcock, *Professor of Chemistry,* B.S., M.A., Duke University; Ph.D., Louisiana State University.

Syed Shahzad Ahmad, *Assistant Professor of Political Science,* B.A., M.A., Aligarh University; Ph.D., University of Tennessee.

William Franklin Ainsley, Jr., *Associate Professor of Geography,* A.B., M.A., University of North Carolina at Chapel Hill; M.Div., Southeastern Baptist Theological Seminary; Phh.D., University of North Carolina at Chapel Hill.

Moorad Alexanian, *Professor of Physics,* B.S., University of Rhode Island; M.S., Ph.D., Indiana University.

David Bruce Allen, *Lecturer in Physical Education,* B.S., M.S., Springfield College.

Thomas Earl Allen, *Professor of Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Walser H. Allen, *Associate Professor of History,* B.A., Moravian College; M.Div., Moravian Theological Seminary; M.A., University of North Carolina at Chapel Hill.

Ferenc Altrichter, *Associate Professor of Philosophy and Religion,* B.A., B.S., M.A., M.S., Eotvos Lorand University of Budapest; Ph.D., Hungarian Academy of Sciences.

Carlos S. Alves, *Assistant Professor of Mathematical Sciences,* B.S., M.S., Faculdade Porto, Portugal; M.A., Ph.D., Pennsylvania State University.

Arvid Asa Anderson, *Associate Professor of Marketing,* B.B.A., M.B.A., Ph.D., The University of Texas at Austin.

Elizabeth T. Anderson, *Adjunct Lecturer in Medical Technology,* B.A., University of North Carolina at Greensboro; B.S., Bowman-Gray School of Medical Technology; MT (ASCP).

John Michael Anderson, *Associate Professor of Management,* B.S., United States Naval Academy; A.B., University of North Carolina at Wilmington; M.B.A., East Carolina University; Ph.D., North Carolina State University.

David Michael Andrews, *Assistant Professor of Education,* B.A., Southern Connecticut State University; M.Ed., Ed.D., University of Maine at Orono.

James Milton Applefield, *Assistant Professor of Education,* B.A., University of North Carolina at Chapel Hill; M.A., Emory University; M.Ed., University of Georgia; Ph.D., Georgia State University.

Pauline F. Applefield, *Assistant Professor of Psychology,* B.A., Bethany College; M.S., Ph.D., Pennsylvania State University.

Robert W. Appleton, *Associate Professor of Accountancy,* B.S., Belmont College; M.B.A., Memphis State University; CPA.

Saul Bachner, *Professor of Education,* B.A., M.Ed., Ph.D., Wayne State University.

Ravija Badarinathi, *Assistant Professor of Management,* B.S., M.S., Allahabad University; Ph.D., University of Georgia.

Jack D. Baker, *Associate Professor of Accountancy,* B.A., University of Colorado; M.S., Ph.D., University of Missouri at Columbia; CPA.

Timothy Alan Ballard, *Assistant Professor of Biology,* B.S., Appalachian State University; Ph.D., Bowman Gray School of Medicine of Wake Forest University.

Paz Irabagon Bartolome, *Professor of Education,* B.S., E. Ed., Philippine Normal; M.Ed., Miami University; Ph.D., Ohio State University.

Donna Gregg Basch, *Adjunct Lecturer in Medical Technology,* B.S., Carson Newman College; MT (ASCP) SC, Bowman Gray School of Medical Technology.

James Rush Beeler, *Professor of French,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Mary Dixon Bellamy, *Assistant Professor of Spanish,* A.B., East Carolina Univeristy; M.A., University of North Carolina at Chapel Hill; graduate study, Universidad de Valladolid.

Sanford P. Benjamin, *Adjunct Professor of Medical Technology,* B.S.,Ohio State University; M.D., Wayne State University College of Medicine.

Kathleen Christine Berkeley, *Associate Professor of History, B.A., M.A., Ph.D., University of California, Los Angeles.*

David Roy Berman, *Assistant Professor of Mathematical Sciences,* B.A., University of Texas at Austin; M.A., University of California at Berkeley; Ph.D., University of Texas at Austin.

Bhanu Bhaskaran, *Assistant Professor of Mathematical Sciences,* B.Sc., B.L., M.Sc., University of Madras; Ph.D., Cornell University.

Walter Clark Biggs, Jr., *Professor of Biology,* B.A., East Carolina University; M.S., Texas A & M University; Ph.D., North Carolina State University.

N. Jackson Blackmore, *Lecturer in Physical Education,* B.A., M.Ed., University of North Carolina at Wilmington.

Delilah Bowen Blanks, *Assistant Professor of Social Work,* A.B., Shaw University; A.B., East Carolina University; M.S.W., Ph.D., University of North Carolina at Chapel Hill.

Frank Joseph Bongiorno, *Assistant Professor of Music.,* B.M., Ithaca College; M.M., North Texas State University; graduate study, Indiana University.

James A. Boylston, *Adjunct Professor of Medical Technology,* B.S., University of South Carolina; M.D., Duke University.

Michael Bradley, *Professor of Psychology,* B.A., M.Ed., Ed.D., University of Georgia.

Ralph W. Brauer, *Professor of Marine Physiology,* A.B., Columbia University; M.Sc., Ph.D., University of Rochester.

William Jasper Brooks, *Associate Professor of Physical Education,* A.B., Atlantic Christian College; M.A., East Carolina University.

Jeffery L. Brown, *Assistant Professor of Mathematical Sciences,* B.S., M.A., Ph.D., University of Georgia.

Robert Tindall Brown, *Professor of Psychology,* A.B., Hamilton College; Ph.D., Yale University.

Thomas P. Brown, *Assistant Professor of Mathematical Sciences,* A.B., University of North Carolina at Chapel Hill; M.A., East Carolina University.

Katherine Ely Bruce, *Assistant Professor of Psychology,* B.A., Southwestern at Memphis; M.S., M.A., Ph.D., University of Georgia.

William A. Bryan, *Professor of Education,* B.S., Florida State University; M.S., Indiana University; Ed.D., University of Wyoming.

Anne Louise Buchanan, *Lecturer and Reference Librarian,* B.S., Marian College; M.L.S., Indiana University.

Thomas Joseph Burke, *Assistant Professor of Management,* A.B., Sacramento State College; M.B.A., University of Miami.

Grace M. Burton, *Professor of Education,* A.B., Annhurst College; M.A., Ph.D., University of Connecticut.

Robert H. Byington, *Professor of English and Folklore,* A.B., Pennsylvania State University; M.A., Lehigh University; Ph.D., University of Pennsylvania.

Charles L. Cahill, *Professor of Chemistry,* A.B., Oklahoma Baptist University; M.S., Ph.D., University of Oklahoma.

Lawrence Bruce Cahoon, *Associate Professor of Biology,* B.S., Washington and Lee University; Ph.D., Duke University.

Denis G. Carter, *Associate Professor of Economics,* A.B., Boston College; Ph.D., University of Florida.

Frank L. Chapman, *Lecturer in Physical Education,* B.S., M.S., Florida State University.

Irvin Garrett Clator, *Associate Professor of Physics,* B.S., M.S., Ph.D., West Virginia University.

Ileana E. Clavijo, *Assistant Professor of Biology,* B.S., Barry University; M.S., Florida Atlantic University; Ph.D., University of Puerto Rico.

Catherine Cecilia Cleare, *Associate Professor of Education,* B.A., Hunter College, CUNY; M.A.T., Bowling Green State University; Ph.D., University of Maryland.

William James Cleary, *Professor of Geology,* A.B., Southern Illinois University; M.A., Duke University; Ph.D., University of South Carolina.

John P. Clifford, *Associate Professor of English,* B.A., St. Francis College; M.A., Ph.D., New York University.

James Glenn Collier, Jr., *Associate Professor of English,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Clarice S. Combs, *Assistant Professor of Physical Education,* B.S., University of Wisconsin-Oshkosh; M.A., Ph.D., Ohio State University.

Harry Allen Comeskey, *Assistant Professor of Finance,* B.S., United States Military Academy; M.B.A., D.B.A., University of Colorado.

Ann Louise Conner, *Associate Professor of Art,* B.A., Salem College; Special Studies in Art, Salem-Hofstra University, Asolo, Italy; M.A.C.T., M.F.A., University of North Carolina at Chapel Hill.

Walter H. Conser, Jr., *Assistant Professor of Philosophy and Religion,* B.A., University of California, Irvine; A.M., Ph.D., Brown University.

Ronald E. Copley, *Associate Professor of Finance,* B.A., M.B.A., Old Dominion University; Ph.D., University of South Carolina.

Joanne King Corbett, *Professor of English,* A.B., Coker College; M.A., Ph.D., University of Montreal.

Paul Crumbley, *Lecturer in English,* B.S., Willamette University; M.A., Reed College; M.A., Breadloaf School of English.

Thaddeus G. Dankel, Jr., *Professor of Mathematical Sciences,* B.S., Duke University; M.A., Ph.D., Princeton University.

Fred Blount Davenport, Jr., *Associate Professor of Business Law,* B.A., M.B.A., J.D., University of North Carolina at Chapel Hill.

Brian F. Davis, *Associate Professor of Physics,* B.S., Bowling Green State University; Ph.D., North Carolina State University.

Richard Ryder Deas, *Professor of Music,* B.F.A., University of New Mexico, B.S., M.S., Juilliard School of Music; Ed.D., Columbia University.

Caroline L. DeMoss, *Assistant Professor of Drama,* B.A., Greensboro College; M.F.A., University of Georgia.

Richard M. Dillaman, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.A., University of Virginia; Ph.D., University of South Carolina.

James C. Dixon, *Professor of Political Science,* A.B., M.A., Marshall University; Ph.D., Emory University.

Richard David Dixon, *Professor of Sociology,* B.A., University of Connecticut; M.A., Marshall University; Ph.D., Emory University.

James Allen Dockal, *Assistant Professor of Geology,* B.S., M.S., Iowa State University; Ph.D., University of Iowa.

Diane Marie Beaudoin Dodd, *Assistant Professor of Biology,* B.A., Agnes Scott College; M.S., M.Phil., Ph.D., Yale University.

Charles Brooks Dodson, *Professor of English,* B.A., DePauw University; M.A., Indiana University; Ph.D., University of Nebraska.

Calvin L. Doss, *Associate Professor of Education,* B.S., Berry College; M.Ed., University of Gerogia; Ph.D., University of North Carolina at Chapel Hill.

Joseph B. Dudley, *Adjunct Professor of Medical Technology,* B.S., Davidson College; M.D., University of Pennsylvania.

David M. DuMond, *Adjunct Research Associate in Biology,* B.A., University of North Carolina at Chapel Hill; M.S., North Carolina State University.

Carolyn S. Dunn, *Associate Professor of Biology,* B.S., M.A., University of Louisville; Ph.D., Ohio State University.

Rodney S. Earle, *Assistant Professor of Education,* Dip. T., Kelvin Grove Teachers College; B.A., M.Ed., Brigham Young University; Ph.D., Indiana University.

Charles L. Earney, *Assistant Professor of Accountancy,* B.B.A., M.B.A., University of Wisconsin-Madison; CPA.

Fara Elikai, *Assistant Professor of Accountancy,* B.S., The Institute of Advanced Accounting-Tehran; M.S., University of Kansas; Ph.D., University of Oklahoma.

Marc R. Ellington, *Lecturer in Physical Education,* B.S., M.Ed., Springfield College.

Norman E. Ellis, *Associate Professor of Education,* B.S., M.A., Ball State University; Ph.D., University of North Carolina at Chapel Hill.

Patricia Carol Ellis, *Assistant Professor of English,* B.A., M.A., Ph.D., University of Georgia.

Richard A. Engdahl, *Assistant Professor of Management,* B.S., M.B.A., University of Michigan; Ph.D., University of Washington.

C. Steven Errante, *Assistant Professor of Music,* B.M., M.A., University of Michigan; D.M.A., The Juilliard School.

William Lester Etheridge, *Assistant Professor of Mathematical Sciences,* B.S., M.S., University of Illinois; Ph.D., Purdue University.

John F. Evans, *Lecturer in English,* B.S. Ed., Dr. Martin Luther College; M.A.T., Saginaw Valley State College; M.A., Breadloaf School of English.

Claude Herman Farrell, III, *Professor of Economics,* B.S., M.E., Ph.D., North Carolina State University.

Gary L. Faulkner, *Professor of Sociology,* B.A., M.A., Ball State University; Ph.D., University of Georgia.

Carole K. Fink, *Professor of History,* B.A., Bard College; M.A., Ph.D., Yale University.

Lenora W. Flynn, *Adjunct Assistant Professor of Medical Technology,* B.A., M.Ed., University of North Carolina at Greensboro.

Charles Fort, *Associate Professor of English,* B.A., Siena Heights College; M.F.A., Bowling Green State University.

Isabell L. Foushee, *Assistant Professor of English,* B.S., M.A., East Carolina University.

Dargan Frierson, Jr., *Associate Professor of Mathematical Sciences,* B.A., M.A., University of North Carolina at Greensboro; Ph.D., University of Arizona.

Charles McGhee Fugler, *Professor of Biology,* B.S., Tulane University; M.S., Louisiana State University; Ph.D., Auburn University.

Donald E. Furst, *Assistant Professor of Art,* B.A., M.A., M.F.A., University of Iowa.

J. Mark Galizio, *Professor of Psychology,* B.A., Kent State University; M.S., Ph.D., University of Wisconsin-Milwaukee.

John M. Garris, *Assistant Professor of Management,* B.A., University of North Carolina at Chapel Hill; M.S., Ph.D., Clemson University.

Candace C. Gauthier, *Assistant Professor of Philosophy,* B.A., State University of New York, Oswego; M.S., State University of New York, Potsdam; M.A., Ph.D., The University of North Carolina at Chapel Hill.

Robert Yesudian George, *Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.Sc., Madras Christian College; M.Sc., Presidency College; Ph.D., University of Madras.

Melvin Lee Gibson, *Lecturer in Physical Education,* B.S., M.A., Western Carolina University.

John E. Gillette, *Lecturer in Military Science,* B.S., M.S., California Polytechnic State University.

Nancy Gilliland, *Assistant Professor of Nursing,* B.S.N., University of North Carolina at Chapel Hill; M.N., Emory University.

Gerry Gingrich, *Lecturer in Management,* B.S., University of North Carolina at Chapel Hill; M.S., Ph.D., University of Maryland.

Nancy J. Gladwell, *Assistant Professor of Recreation,* B.S.R., M.S.P.E., West Virginia University; Re.D., Indiana University.

Christopher Gould, *Associate Professor of English,* B.A., University of Virginia; M.A., Ph.D., University of South Carolina.

Paul Allen Gray, Jr., *Assistant Professor of Nursing and Director RN ACCESS Program;* Diploma in Nursing, Mercy Hospital School of Nursing; B.S.N., North Carolina Central University; A.B., M.S.N., Ph.D., University of North Carolina at Chapel Hill.

Barbara Ann Greim, *Associate Professor of Mathematical Sciences,* B.S., Ursinus College; Ph.D., University of North Carolina at Chapel Hill.

Kenneth Rufus Gurganus, *Assistant Professor of Mathematical Sciences;* B.S., M.S., Ph.D., University of North Carolina at Chapel Hill.

Bobby Lee Guthrie, *Lecturer in Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill.

Courtney T. Hackney, *Associate Professor of Biology,* B.S., University of South Alabama; M.S., Emory University; Ph.D., Mississippi State University.

John Hamilton Haley, *Associate Professor of History,* A.B., Virginia State College; M.A., Old Dominion University; Ph.D., University of North Carolina at Chapel Hill.

Jack Charles Hall, *Lecturer in Geology,* B.S., Grand Valley State College; M.S., University of North Carolina at Chapel Hill; Ph.D., The Ohio State University.

William Woodward Hall, Jr., *Associate Professor of Economics,* B.A., Presbyterian College; M.S., Ph.D., Clemson University.

Arlene Anderson Hanerfeld, *Assistant Professor and Reference Librarian,* B.S. University of North Carolina at Greensboro; M.S.L.S. University of North Carolina at Chapel Hill.

Roy Eugene Harkin, *Professor of Education,* A.B., M.A., Ball State University; Ph.D., Claremont Graduate School.

Stephen Coale Harper, *Professor of Management,* B.B.A., University of New Mexico; M.B.A., University of Arizona; Ph.D., Arizona State University.

Mark R. Harrington, *Lecturer in Speech Communication,* B.A., University of Mississippi; M.A., University of North Carolina at Chapel Hill.

William Burleigh Harris, *Professor of Geology,* B.S., Campbell College; M.S., West Virginia University; Ph.D., University of North Carolina at Chapel Hill.

James D. Harriss, Jr., *Lecturer in Finance,* B.B.A., M.B.A., Sam Houston State University; D.B.A. candidate, Mississippi State University.

Paul Graham Hatcher, *Assistant Professor of Health and Physical Education,* B.A., Belmont College; M.S., Western Kentucky University; Ph.D., George Peabody College for Teachers.

Andrew E. Hayes, *Associate Professor of Education,* B.S., M.A., Louisiana Polytechnic Institute; Ed.D., University of Georgia.

Hathia A. Hayes, *Associate Professor of Education,* B.S., M.S., Louisiana Polytechnic Institute; Ed.D., University of Georgia.

Timothy W. Haywood, *Associate Professor of Physics, B.S., University of Georgia; Ph.D., University of North Carolina at Chapel Hill.*

Robert Taylor Herbst, *Professor of Mathematical Sciences,* B.A., Duke University; M.S., North Carolina State University; Ph.D., Duke University.

Hildelisa Caridad Hernandez, *Associate Professor of Physics,* Sc.D., University of Havana.

Sue Ann Cody Hiatt, *Assistant Professor and Head of Reference,* B.S., Ball State University; M.L.S., Indiana University.

Joe Eugene Hickman, *Associate Professor of Music,* B.M., West Virginia University; M.M., D.M., Indiana University.

Karen L. Hicks, *Adjunct Assistant Professor of Biology,* B.S., Grand Valley State College; Ph.D., Cornell University.

Robert Price Higgins, *Adjunct Research Professor in Biological Oceanography,* B.A., M.A., University of Colorado; Ph.D., Duke University.

Roger Post Hill, *Professor of Economics and Finance,* B.S., North Carolina State University; M.S., Oklahoma State University; Ph.D., Michigan State University; postdoctoral study, University of North Carolina at Chapel Hill.

Charlotte B. Hoelzel, *Adjunct Assistant Professor of Nursing,* B.S., Vanderbilt University; M.S., Medical College of Virginia.

Nancy Lucinda Hollifield, *Associate Professor of Physical Education,* B.A., Furman University; M.Ed., University of Georgia; Ph.D., Louisiana State University.

Earl D. Honeycutt, *Assistant Professor of Marketing,* B.S., M.B.A., Appalachian State University; M.S., Chapman College; Ph.D., University of Georgia.

Larry R. Honeycutt, *Lecturer in Physical Education,* B.A., University of North Carolina at Wilmington; M.A.T., University of North Carolina at Chapel Hill.

Laura A. Honeycutt, *Lecturer in Marketing,* B.S., Bucknell University; M.B.A., Appalachian State University.

Frederick M. Hornack, *Professor of Chemistry,* B.S., Lowell Technological Institute; Ph.D., Florida State University.

Paul Edward Hosier, *Professor of Biology,* B.S., New Paltz State University (New York); M.A., University of Massachusetts; Ph.D., Duke University.

Jon Hee Huer, *Assistant Professor of Sociology,* B.A., California State University at Los Angeles; M.A., Ph.D., University of California, Los Angeles.

Eugene William Huguelet, *Associate Professor and Director of Library Services,* B.A., University of North Carolina at Chapel Hill; M.A., East Carolina University; M.Ln., Emory University.

Harold G. Hulon, *Professor of Education,* A.B., M.Ed., Ph.D., University of North Carolina at Chapel Hill.

John R. Huntsman, *Assistant Professor of Geology,* B.S., Mount Union College; M.A., Ph.D., Bryn Mawr College.

LuEllen Huntley, *Lecturer in English,* B.A., North Carolina State University; M. Litt., Breadloaf School of English.

Lee Anderson Jackson, Jr., *Professor of Psychology,* B.A., Hampden-Sydney College; M.A., Ph.D., University of Florida.

Louise Jackson, *Assistant Professor and Head of Acquisitions,* B.A., Winthrop College; M.Ln., Emory University.

Paul Emil Jambor, *Professor of Mathematical Sciences,* M.A., Charles University, Prague; M.A., Columbia University; Ph.D., Charles University, Prague.

D. Ronald Johnson, *Assistant Professor and Head of Circulation,* A.B., East Carolina University; M.L.S., George Peabody College.

James D. Johnson, *Assistant Professor of Psychology,* B.A., North Carolina Agricultural & Technical State University; Ph.D., Indiana University.

W. Lee Johnston, *Associate Professor of Political Science,* B.A., University of North Carolina at Chapel Hill; M.S., Ph.D., University of Maryland.

William Jay Johnston, *Assistant Professor of Education,* B.S., Midwestern University; M.A., Memphis State University; Ph.D., University of North Carolina at Chapel Hill.

Lloyd P. Jones, *Assistant Professor of Political Science,* B.A., Southern Illinois University; M.S., Northeastern University; Ph.D., Northern Illinois University.

Noel K. Jones, *Associate Professor of Education,* B.A., Harvard College; M.A., Stanford University; Ph.D., Cornell University.

Rebecca B. Jones, *Lecturer in Chemistry,* B.A., Agnes Scott College; M.S., Brown University.

S. Bart Jones, *Assistant Professor of Chemistry,* B.S., Davidson College; Ph.D., West Virginia University.

Matthew T. Kambule, *Assistant Professor of Mathematical Sciences,* B.Sc., University of South Africa; B.Sc., University of the North-So. Africa; M.Sc., University of South Africa; Ph.D., University of Massachusetts (Amherst).

Donald F. Kapraun, *Professor of Biology,* B.S., Eastern Illinois University; Ph.D., University of Texas at Austin.

John K. Karlof, *Professor of Mathematical Sciences,* B.A., State University of New York at Oswego; M.A., M.S., University of Colorado; Ph.D., State University of New York at Stonybrook.

Norman R. Kaylor, *Professor of Accountancy,* B.S., Middle Tennessee State University; M.B.A., Georgia State University; Ph.D., University of Mississippi.

Robert J. Keating, *Lecturer in Management,* B.S., M.B.A., Southern Illinois University; D.B.A. candidate, Kent State University.

Anne S. Kendrick, *Assistant Professor of Biology,* B.A., Longwood College; B.S., M.S., Medical College of Virginia; MT (ASCP).

Rudolf Hans Kiefer, *Assistant Professor of Geography,* B.A., M.A., University of Heidelberg, Germany; Ph.D., University of Georgia.

Bruce L. Kinzer, *Assistant Professor of History,* B.A., Eastern Michigan University; M.A., University of Michigan; Ph.D., University of Toronto.

Mary Lawrence Kirk, *Lecturer and Catalog Librarian,* B.S., University of Tennessee; M.L.S., University of North Carolina at Greensboro.

Joseph M. Kishton, *Associate Professor of Psychology,* B.S., M.A., Ph.D., Ohio State University.

Kathleen Helena Kowal, *Professor of Psychology,* B.S., University of Maryland; M.A., Ph.D., Columbia University.

Barbara Ellen LaGodna, *Lecturer and Head of Cataloging,* B.A., West Virginia University; M.S.L.S., University of Kentucky.

Randy L. LaGrange, *Assistant Professor of Criminal Justice,* B.S., M.A., University of Toledo; Ph.D., Rutgers University.

Brian A. Lakey, *Assistant Professor of Psychology,* B.A., Arizona State University; Ph.D., Indiana University.

Caryl Sue Lamb, *Associate Professor of Psychology,* B.A., M.S.W., University of North Carolina at Chapel Hill; Ph.D., University of Iowa.

Calvin L. Lane, *Lecturer in Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill.

James A. Lanier, III, *Adjunct Associate Professor of Biology,* B.A., University of Virginia; M.A., Ph.D., College of William and Mary.

Louis J. LaNunziata, Jr., *Associate Professor of Education,* B.S., East Stroudsburg State College; M.Ed., Bloomsburg State College; Ph.D., The Ohio State University.

Pierre-Jean G. Lapaire, *Assistant Professor of French,* B.A., M.A., University of Perpignan, France; M.A., Ph.D., University of North Carolina at Chapel Hill.

Richard A. Laws, *Assistant Professor of Geology,* B.A., University of North Carolina at Wilmington; M.A., University of California, Berkeley; Ph.D., University of California, Berkeley.

Luther Drew Lawson, *Assistant Professor of Economics,* B.S., M.S., Indiana State University; Ph.D., University of Tennessee.

Michael H. Leaken, *Adjunct Professor of Medical Technology,* B.A., Loyola University; M.D., University of Maryland.

Stephen D. LeQuire, *Associate Professor of Art,* B.A., M.F.A., East Tennessee State University.

Patricia Barker Lerch, *Associate Professor of Anthropology,* B.A., Cleveland State University; M.A., Ph.D., Ohio State University.

Diane E. Levy, *Associate Professor of Sociology,* A.B., M.A., Ph.D., Temple University.

Jack B. Levy, *Will S. DeLoach Professor of Chemistry,* A.B., Duke University; M.S., Ph.D., North Carolina State University.

Charles A. Lewis, *Professor of Recreation,* B.S., New York State Maritime College; M.S., Hofstra University; M.A., C. W. Post College; Ph.D., New York University.

Judith Bledsoe Lewis, *Assistant Professor of Physical Education,* B.S., East Carolina University; M.S., University of North Carolina at Chapel Hill.

Ann R. Liebermann, *Assistant Professor of Nursing,* B.S.N., Illinois Wesleyan University; M.S.N., Indiana University.

David Gregory Lindquist, *Professor of Biology,* B.A., University of California-Los Angeles; M.A., California State University-Hayward; Ph.D., University of Arizona.

Thomas Coriell Loftfield, *Associate Professor of Anthroplogy,* B.A., William and Mary; M.A., Ph.D., University of North Carolina at Chapel Hill.

Richard C. Longo, *Lecturer in Military Science,* B.A., Furman University.

Jane M. Lowe, *Lecturer in Nursing,* B.S. in Nursing, University of North Carolina at Chapel Hill.

William F. Lowe, *Assistant Professor of German,* A.B., M.A., University of North Carolina at Chapel Hill; candidate for the doctor's degree, North Carolina State University.

Roger Coyle Lowery, *Associate Professor of Political Science,* B.A., M.A., Southern Illinois University; Ph.D., Washington University (St. Louis).

Gabriel G. Lugo, *Associate Professor of Mathematical Sciences,* B.A., M.A., Ph.D., University of California, Berkeley.

Carl Victor Lundeen, *Associate Professor of Biology,* A.B., University of North Carolina at Chapel Hill; Ph.D., Rockefeller University.

Thomas R. Lupton, *Assistant Professor of Mathematical Sciences,* B.S., M.A., East Carolina University; graduate study, Texas A & M University.

Thomas G. MacLennan, *Associate Professor of English,* B.A., M.A., State University College at Buffalo; Ph.D., State University of New York at Buffalo.

Robert Dale McCall, *Professor of Anthropology and Research Associate at the Institute for Marine Biomedical Research* B.S., M.S., Florida State University; Ph.D., Case Western Reserve University.

Michael B. McColl, *Lecturer in English,* B.A., University of Michigan; M.A., Hollins College, M.F.A., Bowling Green State University.

James G. McCormick, *Adjunct Professor of Physiology,* B.S., Bucknell University; Ph.D., Princeton University.

Ralph C. McCoy, *Adjunct Professor of Medical Technology,* B.A., M.D., Emory University.

Anne Bowden McCrary, *Professor of Biology,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Kathy E. McDaniel, *Lecturer in Physical Education,* B.S., University of North Carolina at Greensboro, M.A., Appalachian State University.

Agnes McDonald, *Lecturer in English,* B.A., M.A., University of Missouri at Columbia.

James R. McGee, *Adjunct Professor of Medical Technology,* B.S., Florida Southern College; M.T. (ASCP)

James Kevin McGowan, *Professor of Philosophy and Religion,* A.B., Mary Immaculate College; Ph.L., The Catholic University of America; Ph.D., University of Louvain.

Phillip McGuire, *Associate Professor of History,* B.S., Bishop College; M.A., Southern Methodist University; Ph.D., Howard University.

Diane L. McKinstry, *Lecturer in Psychology,* B.S., Fordham University; Ph.D., University of Minnesota.

Harry C. McLamb, *Assistant Professor of Music,* B.M.E., East Carolina University; M.M., Southern Illinois University.

Melton A. McLaurin, *Professor of History,* B.S., M.A., East Carolina University; Ph.D., University of South Carolina.

Sandra C. McLaurin, *Associate Professor of Mathematical Sciences,* B.S., M.A., East Carolina University; Ph.D., University of South Carolina.

Stephen J. McNamee, *Associate Professor of Sociology,* A.B., Rutgers University, Camden; A.M., Ph.D., University of Illinois, Urbana-Champaign.

Thomas C. Macie, *Assistant Professor of Speech Communication,* B.A. SUNY College at Fredonia; M.F.A., Wayne State University.

Helen Jones Majette, *Assistant Professor of Nursing,* B.S.N., University of North Carolina; M.A., Columbia University.

John J. Manock, *Professor of Chemistry,* B.S., Washington and Jefferson College; Ph.D., Ohio University.

Dorothy P. Marshall, *Lecturer in Management,* B.S., East Carolina University; graduate study, George Peabody College.

Ned Harold Martin, *Professor of Chemistry,* A.B., Denison University; Ph.D., Duke University.

Ronald S. Martin, *Assistant Professor and Director of ROTC,* B.A., San Jose State University; M.S., the University of Southern California.

Sherrill Virginia Martin, *Associate Professor of Music,* B.M., Samford University; M.M., University of Alabama; Ph.D., University of North Carolina at Chapel Hill.

John A. Marts, *Visiting Professor of Accountancy,* B.S., University of North Carolina at Charlotte; M.A.T., Ph.D., University of South Carolina; CPA.

Jane Mathew, *Assistant Professor of Music,* B.M., University of Nebraska-Lincoln; M.A., University of Iowa; M.M., Indiana University.

Eleanor K. Maxwell, *Assistant Professor of Sociology,* B.S., M.A., Temple University; Ph.D., University of California, San Francisco.

Nancy S. Maylath, *Assistant Professor of Health,* B.S., Valparaiso University; M.S., M.P.H., H.S.D., Indiana University.

Cynthia J. Meekins, *Adjunct Research Associate in Biology,* B.S., East Carolina University; M.S., University of North Carolina at Wilmington.

James Joseph Megivern, *Professor of Philosophy and Religion,* B.A., M.A., Mary Immaculate College; S.T.L., Th.D., University of Fribourg; S.S.L., Biblical Institute, Rome.

James Francis Merritt, *Associate Professor of Biology,* B.S., M.A., East Carolina University; Ph.D., North Carolina State University.

Ellen Pletcher Metzer, *Assistant Professor of Geology,* B.S., University of New Orleans; M.S., Ph.D., Syracuse University.

Marcee J. Meyers, *Associate Professor of Education,* B.S., Syracuse University; M.Ed., American University; Ph.D., University of South Florida.

Celeste S. Millen, *Lecturer and Reference Librarian,* B.A., University of Tennessee; M.L.S., George Peabody College, Vanderbilt University.

David Keith Miller, *Professor of Physical Education,* B.S., Wake Forest University; M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Robert Kent Miller, Jr., *Associate Professor of Sociology,* A.B., Franklin and Marshall College; MA., Ph.D., Temple University.

Sybil K. Miller, *Assistant Professor of Chemistry,* B.S., Meredith College; Ph.D., North Carolina State University.

Joel J. Mintzes, *Professor of Biology,* B.S., M.S., University of Illinois, Chicago; Ph.D., Northwestern University.

John E. Morgan, Jr., *Assistant Professor of Economics,* B.S.,The College of William and Mary; M.S.I.M., Georgia Institute of Technology; Ph.D., The University of Georgia.

Joann McFerran Mount, *Assistant Professor of Spanish,* B.A., University of Arkansas; M.A., Ph.D., University of Kentucky.

Richard Terry Mount, *Associate Professor of Spanish,* B.A., Vanderbilt University; M.A., University of North Carolina at Chapel Hill; Ph.D., University of Kentucky.

Richard H. Mullendore, *Lecturer in Education, B.A., Bradley University;* M.S., Southern Illinois University; Ph.D., Michigan State University.

Peter R. Mueller-Roemer, *Associate Professor of Mathematical Sciences,* Vordiplom, University of Mainz (Germany); M.A., University of North Carolina at Chapel Hill; Ph.D., University of Bielfeld (Germany).

John W. Myers, *Assistant Professor of Art,* B.A., Hobart College; M.A., University of Wisconsin, Madison; Ph.D., University of Delaware.

Lewis E. Nance, *Professor of Chemistry,* B.S., M.S., Clemson University; Ph.D., University of the Pacific.

James Harold Nelson, *Associate Professor of Mathematical Sciences,* B.E., M.S., Ph.D., Vanderbilt University.

Rolla Clayborne Nelson, *Assistant Professor of Physics,* B.S., M.A., University of North Carolina at Chapel Hill.

Darwin R. Newton, *Professor of Psychology,* B.A., Chadron State College; M.S., Ed.D., University of Northern Colorado.

Paul T. Nkansah, *Assistant Professor of Management,* B.S., University of Cape Coast (Ghana); M.S., University of Ghana; M.S., Ph.D., Iowa State University.

Hana S. Noor Al-Deen, *Lecturer in Speech Communication,* B.A., Al-Mustansiriyah University; M.A., California State University-Sacramento; Candidate for the Doctor's Degree, State University of New York-Buffalo.

Fletcher Ragland Norris, *Professor of Mathematical Sciences,* B.A., Vanderbilt University; M.A., Ph.D., George Peabody College; post doctoral study, Florida State University.

Michael L. O'Connor, *Adjunct Professor of Medical Technology,* B.S. Rockhurst College; M.S., University of Wisconsin; M.D., University of Kansas.

Edward Alexander Olszewski, Jr., *Professor of Physics,* B.S., Worchester Polytechnic Institute; Ph.D., University of North Carolina at Chapel Hill.

William H. Overman, Jr., *Professor of Psychology and Adjunct Professor of Biology,* B.A., Wake Forest University; M.S., Ph.D.,The Pennsylvania State University.

David Emerson Padgett, *Professor of Biology,* A.B., Duke University; M.S., Ph.D., Ohio State University.

Margaret Holt Parish, *Assistant Professor of English,* B.A., Elmira College; M.L.S., Simmons College; Ph.D., Michigan State University.

Vickie B. Parker, *Lecturer in Recreation,* B.A., University of North Carolina at Wilmington, M.A., University of North Carolina at Chapel Hill.

James F. Parnell, *Professor of Biology,* B.S., M.S., Ph.D., North Carolina State University.

Virginia C. Payne, *Assistant Professor of Nursing,* B.S.N., M.S.H.E., M.S.N., East Carolina University.

Elizabeth A. Pearsall, *Assistant Professor of English,* A.B., University of North Carolina at Greensboro; M.A., University of North Carolina at Chapel Hill.

Carlos Alberto Perez, *Assistant Professor of Spanish,* A.B., Wake Forest University; M.A., Ph.D., University of North Carolina at Chapel Hill.

John R. Perrachione, *Assistant Professor of Marketing,* B.A., Northwestern University; M.A., Ph.D., University of South Florida.

Jeffery L. Phillips, *Assistant Professor of Psychology,* B.A., State University of New York at Binghamton; M.A., Ph.D., Southern Illinois University at Carbondale.

Carol Ann Pilgrim, *Assistant Professor of Psychology,* B.S., Virginia Polytechnic Institute and State University; M.S., Ph.D., University of Florida.

Cathy B. Pittman, *Lecturer in Nursing,* B.S.N., University of Pittsburgh: M.S.N., East Carolina University.

Daniel Belk Plyler, *Professor of Biology,* A.B., Pfeiffer College; M.A., Ph.D., University of North Carolina at Chapel Hill.

Sylvia Knopp Polgar, *Associate Professor of Sociology,* B.S., M.A., Columbia University; MSW, Ph.D., University of North Carolina at Chapel Hill.

Antonio E. Puente, *Associate Professor of Psychology,* B.A., University of Florida; Ph.D., University of Georgia.

Robert J. Rafalko, *Assistant Professor of Philosophy and Religion,* A.B., University of Scranton; M.A., Tufts University; Ph.D., Temple University.

Duncan P. Randall, *Professor of Geography,* A.B., University of Georgia; M.A., Northwestern University; Ph.D., University of North Carolina at Chapel Hill.

James H. Reeves, *Assistant Professor of Chemistry,* B.A., Ph.D., Northeastern University.

J. Paul Reynolds, *Adjunct Professor of Biology,* B.S., Guilford College; M.S., University of North Carolina at Chapel Hill; Ph.D., The Johns Hopkins University.

Sam Leslie Robinson, *Assistant Professor of Mathematical Sciences,* B.S., The University of North Carolina at Charlotte; Ph.D., Virginia Polytechnic Institute and State University.

Robert D. Roer, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.S., Brown University; Ph.D., Duke University.

W. Terry Rogers, *Associate Professor of Drama and Speech,* B.A., University of Florida; M.S., M.A., Ph.D., Florida State University.

Lloyd Earl Rohler, Jr., *Assistant Professor of Speech Communication,* B.A., M.A., Ph.D, Indiana University.

Richard Allan Roscher, *Assistant Professor of Accountancy,* B.B.A., University of Notre Dame; M.B.A., University of Denver; CPA.

Marlene M. Rosenkoetter, *Professor of Nursing,* Diploma in Nursing, Barnes Hospital School of Nursing; B.A., M.Ed., University of Missouri; M.S.N., East Carolina University; Ph.D., St. Louis University.

Gerald S. Rosselot, *Associate Professor of English,* B.S., Wilmington College (Ohio); M.A., DePauw University; Ph.D., University of North Carolina at Chapel Hill.

David Byron Roye, *Associate Professor of Biology,* B.S., College of William and Mary; M.S., Ph.D., University of Florida.

Claire Rozier, *Assistant Professor of Music,* B.A., Goucher College; M.M., University of Cincinnati; D.M.A., Eastman School of Music.

James Carmen Sabella, *Professor of Anthropology,* B.S., State University of New York, Cortland; M.A., Ph.D., Cornell University.

Ibrahim S. Sadek, *Assistant Professor of Mathematical Sciences,* B.Sc., M.Sc., Middle East Technical University; Ph.D., University of California at Santa Barbara.

Shiva Kumar Saksena, *Assistant Professor of Mathematical Sciences,* B.S., M.S., Agra University, India; M. Stat., Indian Statistical Institute; Ph.D., Louisana Tech University.

Richard J. Sanders, *Assistant Professor of Psychology,* B.A., University of California at Santa Barbara; M.Phil., Ph.D., Columbia University.

Rebecca Shields Sawyer, *Assistant Professor of Accountancy,* B.S., North Carolina State University; M.B.A., Duquesne University; CPA.

Yousry Sayed, *Associate Professor of Chemistry,* B.S., M.S., Cairo University; Ph.D., University of Minnesota.

John H. Scalf, Jr., *Professor of Sociology,* B.A., M.A., Stetson University; M.Div., Southeastern Baptist Theological Seminary; Ph.D., University of Kentucky.

Mark E. Scalf, *Lecturer in Physical Education,* B.A., University of North Carolina at Wilmington; M.A., University of North Carolina at Chapel Hill.

Walter Thomas Schmid, *Associate Professor of Philosophy and Religion,* B.A., M.Phil., Ph.D., Yale University.

William Schneider, *Associate Professor of History,* B.A., Stanford University; M.A., Duquesne University; Ph.D., University of Pennsylvania.

Frank J. Schwartz, *Adjunct Professor of Biology,* B.S., M.S., Ph.D., University of Pittsburg.

Lee Schweninger, *Assistant Professor of English,* B.A., University of Colorado; M.A., University of Connecticut at Storrs; Ph.D., University of North Carolina at Chapel Hill.

David G. Seiple, *Lecturer in English,* B.S., Thiel College; M.A., Edinboro State College; Ed.D., East Texas State University.

Jo Ann M. Seiple, *Associate Professor of English,* B.S., M.A., Ed.D., East Texas State University.

Thomas Howard Shafer, *Assistant Professor of Biology,* B.S., Duke University; M.S., Ph.D., Ohio State University.

Susie E. Sheffield, *Lecturer in Accountancy,* B.B.A., University of Mississippi; M.S., Appalachian State University; CPA.

Steven J. Sher, *Assistant Professor of English,* B.A., City College of New York; M.A., University of Iowa; M.F.A., Brooklyn College.

Earl Sheridan, *Assistant Professor of Political Science,* B.A., Appalachian State University; M.A., Ph.D., University of Tennessee.

Debbie Sherman, *Lecturer in Physical Education,* B.S., University of North Carolina at Greensboro, M.S. Ed., James Madison University.

Lee M. Sherman, *Associate Professor of Management,* B.S., University of Maryland; M.B.A., American University; D.B.A., George Washington University.

David R. Shevach, *Assistant Professor of Social Work,* B.A., Harvard College; MSW, University of Iowa; M.A., Ph.D., University of California at San Diego.

Gerald H. Shinn, *Professor of Philosophy and Religion,* A.B., M.Th., Ph.D., Duke University. Danforth Associate.

David J. Sieren, *Professor of Biology,* B.A., Northland College; M.S., Ph.D., University of Illinois.

Henry Pate Singletary, *Adjunct Professor of Medical Technology,* B.S., M.D., Northwestern University.

Ronald K. Sizemore, *Associate Professor of Biology,* B.S., Wake Forest University; M.S., University of South Carolina; Ph.D., University of Maryland.

Douglas D. Smith, *Professor of Mathematical Sciences,* B.S., M.A., University of Illinois; Ph.D., Pennsylvania State University.

Sister Mary Matthew Snow, *Adjunct Lecturer in Medical Technology,* B.A., University of Maine; M.A.T., University of North Carolina at Chapel Hill; MT (ASCP).

Kenneth W. Spackman, *Associate Professor of Mathematical Sciences,* B.S., Pennsylvania State University; M.S., Ph.D., University of Colorado.

Jackson Gillen Sparks, *Professor of French,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Dennis J. Sporre, *Associate Professor of Drama,* B.A., Central Michigan University; M.A., University of Iowa.

Michael Spyrou, *Assistant Professor of Geography,* B.A., Cyprus College; M.A., Ph.D., University of Oregon.

Diane Lee Stephens, *Assistant Professor of Education,* B.S., SUC Geneseo, Geneseo, NY; M.S., Nazareth College, Rochester, NY; Ph.D., Indiana University, Bloomington, Indiana.

Inge Bjerre Stites, *Lecturer in French and German,* Studentereksamen, Lyngby Statsskole; graduate study, Universite de Strasbourg.

John Lemacks Stokes, III, *Professor of English,* A.B., Pfeiffer College; B.D., Emory University; Ph.D., Drew University.

Doretha McKnight Stone, *Assistant Professor of Nursing,* B.S.N., Winston-Salem State University; M.S.N., University of North Carolina at Greensboro.

Sally Sullivan, *Assistant Professor of English,* B.A., M.A., Ph.D., University of North Carolina at Greensboro.

Doug W. Swink, *Associate Professor of Drama,* B.S., Davidson College; M.A., East Carolina University; graduate study, University of North Carolina at Chapel Hill.

Carole Ellsworth Tallant, *Associate Professor of Communication,* A.B., M.A., University of North Carolina at Chapel Hill; Ph.D., Louisiana State University.

Lana D. Taylor, *Lecturer and Reference Librarian,* B.A., University of North Carolina at Wilmington; M.L.I.S., North Carolina Central University.

Paul A. Thayer, *Professor of Geology,* B.A., Rutgers University; Ph.D., University of North Carolina at Chapel Hill.

Terry Theodore, *Professor of Drama,* B.A., Wayne State University; M.A., University of Southern California; Ph.D., University of Michigan.

Carol Chase Thomas, *Assistant Professor of Education,* B.A., University of Kentucky; M.Ed., The Citadel; Ed.D., University of Kentucky.

Robert Brent Toplin, *Professor of History,* B.S., Penn State University; M.A., Ph.D, Rutgers University.

Frank Patrick Trimble, *Lecturer in Speech Communicaton,* B.A., M.A., Southern Illinois University.

Jack Thorne Turner, *Professor of Marketing,* B.S., M.A., West Virginia University; D.B.A., Indiana University.

Patricia A. Turrisi, *Assistant Professor of Philosophy,* B.A., Queen's College City University of NY; M.A., Ph.D., The Pennsylvania State University.

Larry Winfield Usilton, III, *Associate Professor of History,* B.A., M.A., Ph.D., Mississippi State University.

Brenda K. Vanderknyff, *Adjunct Assistant Professor of Nursing,* B.S.N., M.S.N., California State University.

Richard C. Veit, *Associate Professor of English,* B.A., University of Notre Dame; M.A., Ph.D., University of Iowa.

Gilbert L. Voss, *Adjunct Research Professor in Biological Oceanography,* B.S., M.S., University of Miami; Ph.D., George Washington University.

William Morgan Wadman, *Associate Professor of Economics,* B.A., M.S., Brigham Young University; Ph.D., Claremont Graduate School.

William H. Wagoner, *Professor of Education and Lecturer in Political Science,* A.B., Wake Forest University; M.A., East Carolina University; Ph.D., University of North Carolina at Chapel Hill.

John Lewis Walker, III, *Associate Professor of English,* A.B., University of Virginia; M.A., University of California-Berkeley; Ph.D., University of Virginia.

Michael D. Walsh, *Lecturer in Economics,* B.A., M.A., Clemson University; Ph.D., candidate, University of Georgia.

Charles Richard Ward, *Associate Professor of Chemistry,* B.S., Manchester College; M.S., Ph.D., Purdue University.

Mary M. Wasson, *Lecturer in English,* A.B., University of North Carolina at Chapel Hill; M.A., University of North Carolina at Greensboro.

Alan Douglas Watson, *Professor of History,* B.A., Duke University; M.A., East Carolina University; Ph.D., University of South Carolina.

Barbara F. Waxman, *Assistant Professor of English,* B.A., Douglass College, Rutgers University; M.A., City College of New York; Ph.D., City University of New York.

William David Webster, *Assistant Professor of Biology,* B.S., University of North Carolina at Wilmington; M.S., Michigan State University; Ph.D., Texas Tech University.

Steven Michael Weiss, *Assistant Professor of Speech Communication,* B.A., M.A., Ph.D., Temple University.

Betty Jo Hyde Welch, *Professor of Speech Communication,* B.S., M.A., Middle Tennessee State College; Ed.S., George Peabody College; Ph.D., Vanderbilt University.

Michael D. Wentworth, *Assistant Professor of English,* B.A., University of Kansas; M.A., Eastern Michigan University; Ph.D., Bowling Green State University.

Charles W. West, Jr., *Associate Professor of Management,* B.E.E., M.B.A., Cornell University; Ph.D., The University of Louisville.

Kenneth L. Whipkey, *Associate Professor of Mathematical Sciences,* A.B., M.A., Kent State University; M.S., University of Evansville; Ph.D., Case-Western Reserve University.

Joan D. Willey, *Professor of Chemistry,* B.S., Duke University; Ph.D., Dalhousie University.

John Taylor Williams, Jr., *Professor of Psychology,* B.A., University of Texas at Arlington; M.A., Ph.D., University of Florida.

Cecil L. Willis, *Professor of Criminal Justice,* B.S., East Tennessee University; M.S., East Carolina University; Ph.D., Virginia Polytechnic Institute and State University.

Joe B. Wilson, Jr., *Assistant Professor of Philosophy and Religion,* B.A., M.A., University of Wisconsin; Ph.D., University of Virginia.

William Walton Woodhouse, III, *Associate Professor of Spanish,* A.B., University of North Carolina at Chapel Hill; M.A., Ph.D., University of Wisconsin.

Andrew J. Worsey, *Assistant Professor of Mathematical Sciences,* B.Sc., Durham University, Durham City, England; Ph.D., Brunel University, Uxbridge, England.

Eleanor Boyd Wright, *Assistant Professor of Education,* A.B., Greensboro College; M.A., State University of New York, College of Geneseo; Ph.D., University of North Carolina at Chapel Hill.

Joanna Ennis Wright, *Assistant Professor and Reference Librarian,* B.A., East Carolina University; M.S.L.S., University of North Carolina at Chapel Hill.

Charles G. Yarbrough, *Adjunct Associate Professor of Biology,* B.S., M.A., Wake Forest University; Ph.D., University of Florida.

G. Frank Yelverton, *Adjunct Research Associate in Biology,* B.S., University of North Carolina at Chapel Hill; M.S., University of North Carolina at Wilmington.

John Zeko, *Assistant Professor of Accountancy,* A.B., University of North Carolina at Chapel Hill; M.P.A., Georgia State University; CPA.

Victor A. Zullo, *Professor of Geology and Adjunct Professor of Biology,* B.A., M.A., Ph.D., University of California at Berkeley.

RETIRED FACULTY

***Franklin H. Allen, M.S. (1956-1981),** *Associate Professor of Biology*

***Joseph C. Awkard, Jr., Ed.D. (1979-1985),** *Professor of Psychology*

***Anne Barksdale, M.S. (1957-1966),** *Assistant Professor of Business*

Luetta Navada Booe, M.S. (1965-1975), *Professor of Nursing*

Samuel Tinsley Chambers, Ph.D. (1964-1976), *Professor of History*

***James Marshall Crews, Ed.D. (1948-1981),** *Professor of Mathematical Sciences*

Henry G. Crowgey, Ph.D. (1967-1981), *Professor of History*

***Derick G.S. Davis, M.S. (1971-1983),** *Assistant Professor of Recreation*

***Will Scott DeLoach, Ph.D. (1963-1977),** *Professor of Chemistry*

***Jack Dermid (1962-1985),** *Associate Professor of Biology*

Joseph F. Dunn, M.Ed. (1968-1980), *Assistant Professor of Business Administration*

Anne Mackie Fitzgibbon (1965-1985), *Assistant Professor of Drama*

***Antolin Gonzalez-del-Valle, Ph.D. (1964-1976),** *Professor of Spanish*

***Helen Hagan, M.L.S. (1964-1974),** *Director of Library Services*

***B. Frank Hall, Th.D. (1963-1979),** *Professor of Philosophy and Religion*

Vicente Nestor Hernandez (1963-1985), *Associate Professor of Mathematical Sciences*

***Claude F. Howell, H.H.D. (1953-1980),** *Associate Professor of Art*

***Adrian D. Hurst, M.A. (1947-1968),** *Associate Professor of Mathematics*

***Mildred Johnson, M.A. (1947-1960),** *Professor of Social Sciences*

Ruby Bame Knox, M.Ed. (1962-1978), *Assistant Professor of Business*

***Glenn Richard Long, M.A. (1966-1983),** *Assistant Professor of Mathematical Sciences*

***Margaret Shannon Morton, M.A. (1947-1965),** *Professor of English*

J. Paul Reynolds, Ph.D. (1964-1971), *Vice Chancellor for Academic Affairs*

***Eloise Scott, M.A. (1968-1976),** *Assistant Professor of Mathematical Sciences*

Philip C. Smith, Jr., M.L.S.(1969-1985), *Assistant Professor and Reference Librarian*

***Betty Holden Stike, M.A. (1964-1983),** *Assistant Professor of Education*

David E. Warner, M.Ed. (1965-1979), *Associate Professor of Health, Physical Education and Recreation*

***E. M. West, Ed.D (1963-1981),** *Professor of Business Administration*

Betty Sue Westbrook, M.L.S., (1965-1985), *Assistant Professor and Head of Cataloging*

Mary Alice Whitfield, M.S., (1965-1979), *Assistant Professor of Nursing*

**Emeritus status*

INDEX

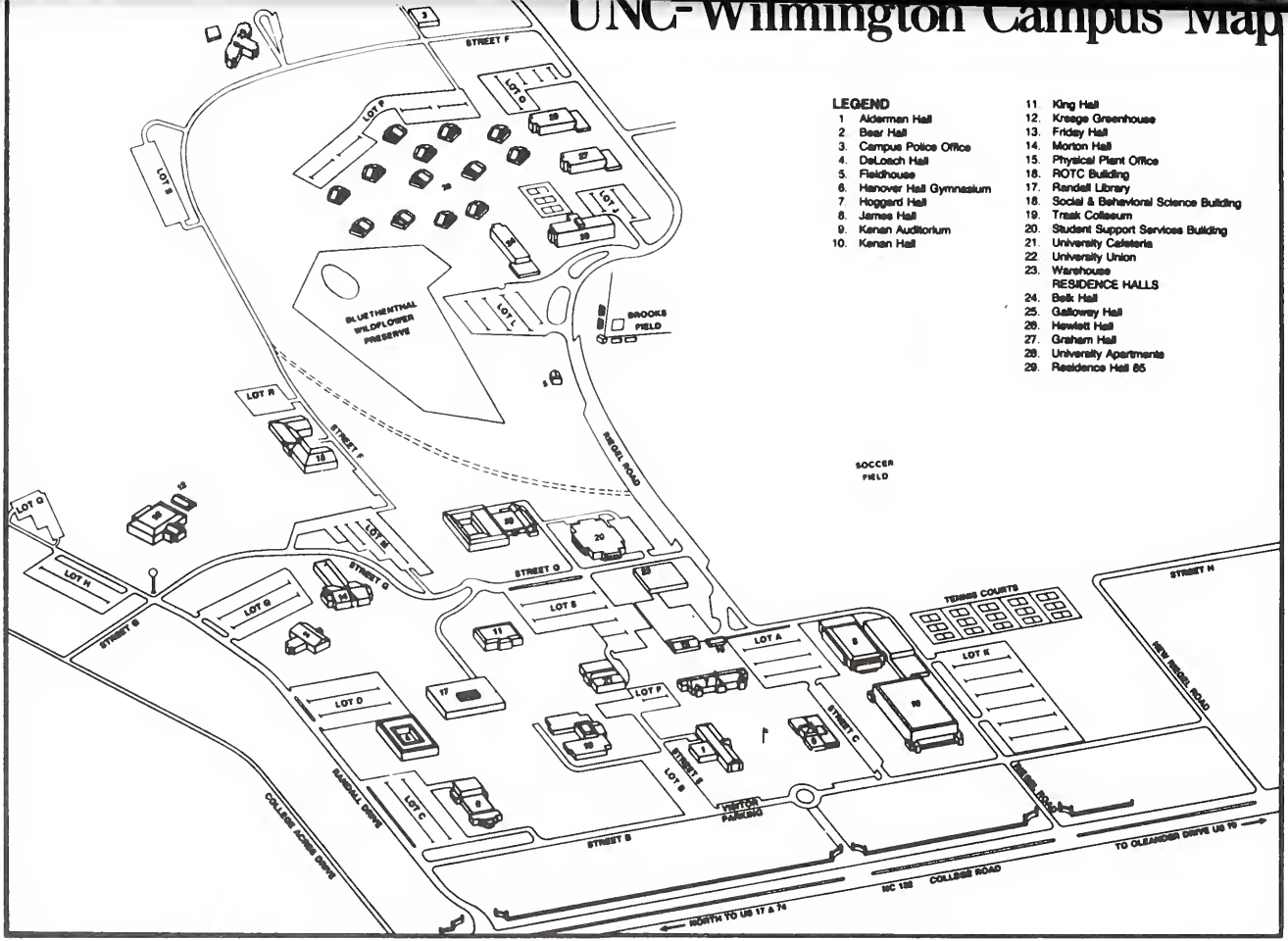
Academic Affairs 58
Advisors 58
Honor Code 59
Probation 61
Programs 66
Regulations 58
Suspension 62
Accountancy 188-189
Accreditation 13
Administrative officers and staff 7
Admissions 20
Former students 22
Freshmen 20
Graduate 24
High school students 23
International students 24
Notification of acceptance 20
Nursing program 22, 214
Senior citizens 24
Special students 23
Summer visitors 23
Transfer students 21
Three-year rule 22
Unclassified students 22
Adult education program 232
Advanced placement 58
Agriculture, preprofessional program 226
American Indian Student Legislative Grant 34
Anthropology 174-178
Application dates 20
Application fee 21
Areas of study 66
Army ROTC 147-149, 230
Art 86-89
Art exhibitions 53
Athletics 51
Attendance regulations 61
Auditing courses 60
Awards 54-55
Bachelor of Arts degree 66
Bachelor of Science degree 66
Basic studies requirements 69-71
Biological Sciences 73-81
Board of Governors 10
Board of Trustees 12
Buildings 15-16
Business Administration, Cameron School of, Admissions requirements 187
Degrees, concentrations 187
Business Management Courses 195-197
Calendar of events 5-6
Campus 15
Campus map 296
Career Planning and Placement Center 45
Change of Major 59
Change of name or address 64
Chemistry 81-85
Class attendance 61
Classification of students 61
Clubs and organizations 51
College of Arts and Sciences 73
Computer Science 136-141
Continuing Education 231
Correspondence credit 58
Course descriptions 72
Creative Arts 86
Art 86-89
Drama 89-91
Music 91-100
Speech Communication ... 100-103
Credit 58
Correspondence 58
Transfer 58
Criminal Justice 178-179
Curricular Studies 200
Dean of Students Office 44
Dean's list 60
Debate team 53
Deficiencies 61
Degrees offered 66
Areas of study 66
General requirements 68-69
Requirements for second degree 64
Dentistry, preprofessional program 227
Directed individual study 72
Directory information 46
Dismissal 62
Disruption of educational process 47
Dormitories 16
Drama 89-91
Earth Sciences 103
Economics and Finance 190-194
Education, School of 200
Admissions requirements 68
Courses 206-213
Degrees, concentrations 201-206

Educational Design and Management 200
Employment 39
Engineering 110-112
English 112-119
Environmental Studies 119-121
Examinations
Admissions 20
Advanced placement 58
Final examinations 61
Exemptions 58
Expenses 28
Extension program 232
Faculty 274-291
Fees
Application 21
Graduate 236
Graduation 28
Late registration 28
Field experience in biology 230
Final examinations 61
Financial Aid 34
Undergraduate 34
Graduate 239
Food service 45
Forensics team 53
Foundation Chair 14
French 149-151
Freshmen 20
Admissions 20-21, 25
Orientation 58
Registration 58
General College Advising Program 67
General degree requirements 68-71
Geography 104-107
Geology 107-110
Graduate 261
German 154
Grade appeals 61
Grading 59
Graduate studies 234
Adding, dropping, withdrawing 241
Admissions requirements
General 234
Master of Business Administration 235
Master of Education 235
Master of Science 236
Application for admission to candidacy and the degree 243
Course credit 240
Degree time limits 243
Examination, comprehensive 242
Foreign language requirement 243
Financial aid 239
Graduate grading 241
Master of Business Administration 235, 244
Course descriptions 245-249
Accountancy 245
Business Management 246
Economics 247
Finance 248
Marketing 248
Degree requirements 244
Master of Education 235, 249
Course descriptions 254-261
Degree requirements 249-253
Educational Administration and Supervision Program 253
Administrative Track 253
Supervision Track 253
Elementary Education Program 249-251
Early Childhood Track 250
Intermediate Track 250
Reading Education Program 251
Special Education Program 252
Master of Science in Geology 236, 261
Course Descriptions 262-264
Degree Requirements 261
Master of Science in Marine Biology 236, 261
Course descriptions 265-271
Degree requirements 264
Tracks
Biological Oceanography . 265
Coastal Biology 265
Marine Biology 265
Minority Presence Grant Program 239
On-campus living 237
Procedure for protest of grade 242
Refunds 238
Registration 240
Residence credit computation 242
Residency status for tuition payment 238

Summer session 238
Thesis 243
Tuition and fees 236
Veterans educational benefits 240
Withdrawal 241
Graduation 28, 63
Application 63
Fee 28
Requirements 63
With distinction 64
Grants 34
Health examination 71
Health Insurance 46
Health, Physical Education and Recreation 121-128
Health services 45
History 128-135
History of UNCW 11
Honor Code 59
Honor societies 54
Honors Program 62
Housing 45
Humanities area requirements 67
Incomplete grades 59
Indebtedness 64
Information Center 50
In-state status for tuition 28
Institute for Marine Biomedical Research 229
Insurance, student health 46
International students 24
Law, preprofessional program 226
Library 16
Loans 39-40
Majors, areas of study 66
Major, double 64
Management and Marketing 194-199
Marine Biology 74
Graduate 229, 264
Marine Science Research 229
Marketing 197-199
Mathematical Sciences 136-147
Meals 29
Medical services 45
Medical Technology 223-225
Medicine, preprofessional program 227
Military Science 147-149
Minority Affairs Office 50
Minority presence grant program 34
Modern Languages 149-155
Music 91-100
Musical organizations 52
Natural science requirements 70
Nondiscrimination Policy 24
Nursing program 214-222
Off-campus courses 60
Office of Special Programs 229
On-campus living 29
Organizations and clubs 51
Orientation 58
Out-of-state status for tuition 28
Parks and Recreation Management 125
Payments 28
Pharmacy, preprofessional program 228
Philosophy and Religion 155-160
Physical Education 121-128
Physics 160-163
Placement service 45
Political Science 163-168
Portuguese 154
Postal Services 50
Preprofessional programs 226
Agriculture 226
Dentistry 227
Engineering 226
Forestry 226
Law 226
Medicine 227
Pharmacy 228
Physical Therapy 228
Veterinary Medicine 228
Preregistration 58
Probation, academic 62
Professional programs 223
Medical Technology 223
Nursing 225
Teacher Education 225
Psychology 168-173
Publications, student 51
Readmission 62
Recreation courses 126-128
Refunds 29-30
Registration 58
Religion 158-160
Repeating of courses 60
Residence status for tuition 30
Requirements
Admission 20, 21
Basic studies 69-71
Double major 64
Graduation 63
Physical Education 71

Retention 62
Second degree 64
Residence Life Program 45
Retention chart 62
ROTC, See Military Science
Safety and health program 24
Scholarships 35
School of Business Administration, Cameron 68, 187
School of Education 68, 200, 249
School of Nursing 69, 214
Second degree requirements 64
Senior citizens 24
Social Science 173
Social Work 179-181
Sociology and Anthropology 173-186
Spanish 151-153
Special Education 204
Special programs 229
Army ROTC program 230
Continuing Education 231
Environmental Studies 230
Extension 232
Field Experience in Biology ... 230
Institute for Marine Biomedical Research 229
Marine Biology curriculum 229
Marine Science Research 229
Office of Special Programs 231
Special students 23
Speech Communication 100-103
Statistics 145-147
Student Activities Office 50
Student Affairs 44
Student conduct 46
Student Development Center 44
Student Development Services 44
Student Government Association 51
Student Health and Wellness Center 45
Student life 50-53
Student Organizations 51
Summer school 231
Suspension 62
Teacher Education Program 225
Teaching Excellence Award 14
Thesis 243
Three-year rule 22
Transcripts 64
Transfer students 21
Admission 21
Credit 22
Trial courses 72
Tuition and fees 28
Unclassified students 22
Admission 22
Definition 22
University of North Carolina 11
Board of Governors 10
General Administration Officers 10
History 11
University Program Board 51
University Readers Theatre 52
University Theatre 52
University Union 44, 50
Veterans' Affairs 41
Veterinary Medicine, preprofessional program 228
Withdrawal 60
Work programs 39

UNC-Wilmington Campus Map



UNCW
The University of North Carolina
at Wilmington
Wilmington, N.C. 28403-3297

FOURTH
CLASS
BOOK RATE

The University of North Carolina at Wilmington

Undergraduate and Graduate Catalogue

1988~1989

Randall Library UNC-W

The University of North Carolina at Wilmington

Undergraduate and Graduate Catalogue

1988-1989

BULLETIN 40

he University of North Carolina at Wilmington is committed to equality of educational opportunity nd does not discriminate against applicants, students, or employees based on race, color, national origin, eligion, sex, age, or handicap. Moreover, The University of North Carolina at Wilmington is open to eople of all races and actively seeks to promote racial integration by recruiting and enrolling a larger umber of black students.

TABLE OF CONTENTS

Calendar of Events 5
Administrative Officers 7
The University of North Carolina 10
The University of North Carolina at Wilmington 12
Admissions 18
Expenses 26
Financial Aid 32
Student Affairs 44
Student Life 50
Academic Regulations 56
Degree Requirements and Course Descriptions 64
Graduate Studies 228
Faculty 266
Index 283
Campus Map 288

All provisions, regulations, degree programs, course listings, etc., in effect when this catalogue went to press are subject to revision by the appropriate governing bodies of The University of North Carolina at Wilmington.

10,000 copies of this public document were printed at a cost of $14,612.85 or $1.46 per copy (G.S. 143-170.1)

B.D. Schwartz
Chairman, Board of Trustees

On behalf of the Board of Trustees, we ish to extend a very warm welcome to ach and every student who has enrolled this "University by the Sea."

You are headed for a very exciting arning experience, one that you will thorughly enjoy. Whether you pursue liberal rts, business, or science—graduate or ndergraduate work—our faculty will inpire as well as teach you.

This University has much to offer—its ecreational programs, its varied extraurricular activities, and its support of the rts. As an added attraction, its setting is ne that includes the beaches, the river, s well as beautiful historic Wilmington.

We hope you will take full advantage of ne many facets of our campus, and that ou will gain in friendships as well as in nowledge.

We wish you success in your endeavrs, and happiness in your new home, The Jniversity of North Carolina at Wilmingon.

ery truly yours,

B. D. Schwartz

.D. Schwartz
hairman, Board of Trustees

Dr. William H. Wagoner
Chancellor

It is with a great deal of pleasure that I welcome each of you to The University of North Carolina at Wilmington. You will find that this is a friendly community of scholars, and I believe you will enjoy being a part of it as much as I do.

This campus is one of the fastest growing campuses in the University system, and we are proud of our accomplishments over the years.

The programs offered by the University are designed to serve a broad spectrum of interests in the liberal arts and sciences. Undergraduate instruction and research opportunities are provided in fine arts, humanities, natural and social sciences, teacher education and other professional disciplines. Pre-professional programs in medicine, pharmacy, engineering, forestry, dentistry, agriculture and law are also offered. Strong programs in the fine arts include studio art, drama and applied music.

Programs available through UNC-Wilmington's graduate school include several options in the School of Education, Master of Science programs in Marine Biology and Geology, and a unique and innovative program leading to the degree of Master of Business Administration.

We welcome you to "UNC by the Sea"—a very special place!!

Sincerely,

William H. Wagoner

William H. Wagoner
Chancellor

1988

JANUARY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

FEBRUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

MARCH

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

APRIL

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

MAY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

JUNE

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

JULY

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

AUGUST

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

SEPTEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

OCTOBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

NOVEMBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

DECEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

1989

JANUARY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

FEBRUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28				

MARCH

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

APRIL

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

MAY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JUNE

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

JULY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

AUGUST

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

SEPTEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

DECEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

1990

JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

MARCH

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

APRIL

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

JUNE

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

JULY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

AUGUST

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

OCTOBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

NOVEMBER

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

DECEMBER

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

CALENDAR OF EVENTS*
1988-89

Fall Semester, 1988

August 15, Monday	Academic Year Begins
August 20, Saturday	On-campus housing opens for new students
August 21, Sunday	On-campus housing opens for returning students
August 22-23, Monday-Tuesday	Orientation and advising
August 24, Wednesday	Registration
August 25, Thursday	Classes begin
August 31, Wednesday	Last day to drop or add without a grade
September 5, Monday	Labor Day Holiday
September 15, Thursday	Faculty meeting
October 6, Thursday	Last day to withdraw with W – undergraduate students
October 12, Wednesday	Fall vacation begins 10:30 p.m.
October 17, Monday	Fall vacation ends 8:00 a.m.
October 27, Thursday	Graduation application deadline – Spring 1989
November 9, Wednesday	Last day to withdraw with a WP – graduate students
November 22, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 28, Monday	Thanksgiving vacation ends 8:00 a.m.
December 9, Friday	Last day of classes
December 10, Saturday	Reading Day
December 12-17, Monday-Saturday	Final examinations
December 19-20, Monday-Tuesday	Final examinations
December 20, Tuesday	Fall Semester ends/on-campus housing closes

Spring Semester, 1989

January 4, Wednesday	On-campus housing opens for new students
January 5, Thursday	Orientation and advising
January 5, Thursday	On-campus housing opens for returning students
January 6, Friday	Registration
January 9, Monday	Classes begin
January 13, Friday	Last day to drop or add without a grade
January 16, Monday	Martin Luther King Holiday
February 17, Friday	Last day to withdraw with W – undergraduate students
February 24, Friday	Graduate application deadline, Summer 1989
March 3, Friday	Spring vacation begins 10:30 p.m.
March 13, Monday	Spring vacation ends 8:00 a.m.
March 23, Thursday	Easter vacation begins 10:30 p.m.
March 27, Monday	Easter vacation ends 8:00 a.m.
March 28, Tuesday	Last day to withdraw with WP – graduate students
April 6, Thursday	Faculty meeting
April 25, Tuesday	Last day of classes
April 26, Wednesday	Reading Day
April 27-29, Thursday-Saturday	Final examinations
May 1-5, Monday-Friday	Final examinations
May 5, Friday	Spring Semester ends/on-campus housing closes
May 13, Saturday	Commencement
May 15, Monday	Academic Year Ends

Summer Session, 1st, 1989

May 18, Thursday	On-campus housing opens
May 19, Friday	Registration
May 22, Monday	Classes begin
May 23, Tuesday	Last day for registration
May 24, Wednesday	Last day to drop without a grade
May 31, Wednesday	Last day to withdraw with W – undergraduate students
June 9, Friday	Last day to withdraw with WP – graduate students
June 20, Tuesday	Last day of classes
June 21, Wednesday	Final Examinations; term ends

Summer Session, 2nd, 1989

June 25, Sunday	On-campus housing opens
June 26, Monday	Registration
June 27, Tuesday	Classes begin
June 28, Wednesday	Last day for registration
June 29, Thursday	Last day to drop or add without a grade
July 4, Tuesday	Holiday
July 7, Friday	Last day to withdraw with W – undergraduate students
July 18, Tuesday	Last day to withdraw with WP – graduate students
July 28, Friday	Final examinations; term ends

*Calendar may be adjusted due to State legislative action.

CALENDAR OF EVENTS*
1989-90

Fall Semester, 1989

August 20, Sunday	On-campus housing opens
August 21-22, Monday-Tuesday	Orientation and advising
August 23, Wednesday	Registration
August 24, Thursday	Classes begin
August 30, Wednesday	Last day to drop or add without a grade
September 4, Monday	Labor Day Holiday
September 14, Thursday	Faculty Meeting
October 4, Wednesday	Last day to withdraw with W – undergraduate students
October 11, Wednesday	Fall vacation begins 10:30 p.m.
October 16, Monday	Fall vacation ends 8:00 a.m.
October 26, Thursday	Graduation application deadline, Spring 1990
November 10, Friday	Last day to withdraw with WP – graduate students
November 21, Tuesday	Thanksgiving vacation begins 10:30 p.m.
November 27, Monday	Thanksgiving vacation ends 8:00 a.m.
December 8, Friday	Last day of classes
December 11-16, Monday-Saturday	Final examinations
December 18-19, Monday-Tuesday	Final examinations
December 19, Tuesday	Fall semester ends/on-campus housing closes

Spring Semester, 1990

January 3, Wednesday	On-campus housing opens
January 4, Thursday	Orientation and advising
January 5, Friday	Registration
January 8, Monday	Classes begin
January 12, Friday	Last day to drop or add without grade
January 15, Monday	Martin Luther King Holiday
February 16, Friday	Last day to withdraw with W – undergraduate students
March 2, Friday	Spring vacation begins at 10:30 p.m.
March 12, Monday	Spring vacation ends at 8:00 a.m.
March 16, Friday	Graduation application deadline, Summer 1990
March 27, Tuesday	Last day to withdraw with WP - graduate students
April 12, Thursday	Easter vacation begins at 10:30 p.m.
April 16, Monday	Easter vacation ends 8:00 a.m.
April 19, Thursday	Faculty meeting
April 24, Tuesday	Last day of classes
April 25, Wednesday	Reading Day
April 26-28, Thursday-Saturday	Final examinations
April 30-May 4, Monday-Friday	Final examinations
May 4, Friday	Spring semester ends/on-campus housing closes
May 12, Saturday	Spring Commencement

Summer Session, 1st, 1990

May 17, Thursday	On-campus housing opens
May 18, Friday	Registration
May 21, Monday	Classes begin
May 22, Tuesday	Last day for registration
May 23, Wednesday	Last day to withdraw without a grade
May 30, Wednesday	Last day to withdraw with a W – undergraduate students
June 8, Friday	Last day to withdraw with WP – graduate students
June 19, Tuesday	Last day of classes
June 20, Wednesday	Final examinations/term ends

Summer Session, 2nd, 1990

June 24, Sunday	On-campus housing opens
June 25, Monday	Registration
June 26, Tuesday	Classes begin
June 27, Wednesday	Last day for registration
June 28, Thursday	Last day to withdraw without a grade
July 4, Wednesday	Independence Day Holiday
July 9, Monday	Last day to withdraw with W – undergraduate students
July 17, Tuesday	Last day to withdraw with WP – graduate students
July 26, Thursday	Last day of classes
July 27, Friday	Final examinations/term ends

*Calendar may be adjusted due to State legislative action.

ADMINISTRATIVE OFFICERS OF THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

William H. Wagoner, Ph.D. ..... *Chancellor*
George E. Bair, Ph.D. ..... *Special Assistant to the Chancellor*
Paul B. Eaglin, J.D. ..... *Special Assistant for Legal Affairs*

ACADEMIC AFFAIRS

Charles L. Cahill, Ph.D. ..... *Provost and Vice Chancellor for Academic Affairs*
James K. McGowan, Ph.D. ..... *Associate Vice Chancellor for Academic Affairs and Acting Dean, Graduate School*
Paul E. Hosier, Ph.D. ..... *Assistant Vice Chancellor for Academic Affairs and Acting Director for Computer and Information Systems*
David K. Miller, Ph.D. .... *Assistant Vice Chancellor for Academic Affairs and Director of Summer Sessions*
Daniel B. Plyler, Ph.D. ..... *Dean, College of Arts and Sciences*
Norman R. Kaylor, Ph.D. ..... *Dean, Cameron School of Business Administration*
Roy E. Harkin, Ph.D. ..... *Dean, School of Education*
Marlene M. Rosenkoetter, Ph.D. ..... *Dean, School of Nursing*
James F. Merritt, Ph.D. ..... *Acting Director of Institute for Marine Biomedical Research*
Eugene W. Huguelet, M.L.S. ..... *Director of Library Services*
John J. Manock, Ph.D. ..... *Director of Research Administration*
James C. Edmundson, Ed.D. ..... *Director of Special Programs*
Dorothy P. Marshall, B.S ..... *Registrar*
Diane M. Zeeman, M.A. ..... *Director of Undergraduate Admissions*

BUSINESS AFFAIRS

R. O. Walton, Jr., B.A ..... *Vice Chancellor for Business Affairs*
J. Carl Dempsey, M.Ed. ..... *Associate Vice Chancellor for Business Affairs*
Charles W. King, M.A. ..... *Assistant Vice Chancellor for Business Affairs - Business*
Timothy A. Jordan, M.B.A. ..... *Assistant Vice Chancellor for Business Affairs - Finance*
Tammy E. Blizzard, B.S. ..... *Director of Accounting*
Margaret T. Robison, M.Ed. ..... *Director of Auxiliary Services*
Nikki S. Howard, B.S., CPA. ..... *Director of Internal Auditing*
William R. Calloway, M.P.A. ..... *Director of Personnel Services*
Roger E. Fry, B.S.C.E., P.E. ..... *Director of Physical Plant Services*
Joseph M. Johnson, Jr., B.S. ..... *Director of Public Safety*
Charles L. Sanders, III, C.P.M. ..... *Director of Purchasing Services*
LeRoy Oakley, III, C.P.A. ..... *Director of Systems and Budget*

STUDENT AFFAIRS

William A. Bryan, Ed.D. ..... *Vice Chancellor for Student Affairs*
Richard H. Mullendore, Ph.D. ..... *Associate Vice Chancellor for Student Affairs*
Patricia Leonard, M.A. ..... *Dean of Students*
Joseph V. Capell, M.Div. ..... *Director of Financial Aid*
Diane L. McKinstry, Ph.D. ..... *Assistant Vice Chancellor for Student Affairs-Student Development Services*
Linda Moore, M.Ed. ..... *Director of University Union*
Catherine Vangellow, M.P.H. ..... *Director of Student Health and Wellness Center*

UNIVERSITY ADVANCEMENT

F. Douglas Moore, Ed.D. ..... *Vice Chancellor for University Advancement*
M. Tyrone Rowell, M.A. ..... *Associate Vice Chancellor for University Advancement*
W. Frank Bowen, M.A.Ed. ..... *Director of Alumni/Parents Program*
Mary W. Cunningham, M.A. ..... *Director of University Relations*
Renée R. Brantley, A.B.J. ..... *Director of Publications*

SUPPORTING SERVICES

William J. Brooks, M.S. ..... *Director of Athletics*
Robert E. Fry, M.S.P.H. ..... *Director of Institutional Research*
Ralph H. Parker, M.Ed. ..... *Director of Minority Affairs*
George E. Bair, Ph.D. ..... *Compliance Officer*

THE UNIVERSITY

THE UNIVERSITY OF NORTH CAROLINA

SIXTEEN CONSTITUENT INSTITUTIONS

C. D. Spangler, Jr., B.S., M.B.A., D.H.L., LL.D. ..... *President*
Raymond H. Dawson, B.A., M.A., Ph.D. ..... *Vice President-Academic Affairs*
Roy Carroll, B.A., M.A., Ph.D. ..... *Vice President-Planning*
Nathan F. Simms, Jr., B.S., M.S., Ph.D. .. *Vice President - Student Services and Special Programs*
L. Felix Joyner, A.B. ..... *Vice President-Finance*
Jasper D. Memory, B.S., Ph.D. ..... *Vice President-Research and Public Service*
Wyndham Robertson, A.B. ..... *Vice President-Communications*
Jay M. Robinson, B.S., M.A., Ed.D. ..... *Vice President-Public Affairs*
David G. Martin, B.A., LL.B. ..... *Acting Secretary of the University*
Richard H. Robinson, Jr., A.B., LL.B. ..... *Assistant to the President*
John W. Dunlop, B.A. ..... *Director, The University of North Carolina Center for Public Television*

BOARD OF GOVERNORS
THE UNIVERSITY OF NORTH CAROLINA

Philip G. Carson, Chairman
David J. Whichard, II, Vice Chairman
Mrs. Geneva J. Bowe, Secretary

Class of 1989

Mrs. Geneva J. Bowe
Philip G. Carson
Walter R. Davis
R. Phillip Haire
Mrs. Julia T. Morton
Asa T. Spaulding, Jr.
David J. Whichard, II
William K. Woltz

Class of 1991

Irwin Belk
Wayne A. Corpening
J. Earl Danleley
Charles D. Evans
Mrs. Joan S. Fox
James E. Holshouser, Jr.
Dr. Joy J. Johnson
Robert L. Jones
John R. Jordan, Jr.
Mrs. John L. McCain
Samuel H. Poole
W. Travis Porter
J. Aaron Prevost
Louis T. Randolph
Joseph E. Thomas
Gus Tulloss

Class of 1993

Roderick D. Adams
Charles Z. Flack, Jr.
John A. Garwood
Reginald F. McCoy
Mrs. Martha F. McNair
D. Samuel Neill
Maceo A. Sloan
Ms. Ruth Dial Woods

Members Emeriti

William A. Dees, Jr.
William A. Johnson

HISTORY OF THE UNIVERSITY

The University of North Carolina is comprised of all the public institutions of higher education in North Carolina that confer degrees at the baccalaureate level or higher. The University was authorized by the State Constitution in 1776, and it was chartered in 1789 by the General Assembly.

The University of North Carolina opened its doors to students at Chapel Hill in 1795. Thereafter, beginning in the latter part of the nineteenth century, the General Assembly of North Carolina has established and supported fifteen other public senior institutions in keeping with Article IX, Section 8, of the Constitution of North Carolina which provides that the General Assembly shall maintain a public system of higher education, comprising The University of North Carolina and such other institutions of higher education as the General Assembly may deem wise."

By 1969, The University of North Carolina included six constituent institutions, governed by a single Board of Trustees. This multi-campus University had its beginnings in legislation enacted in 1931 that defined The University of North Carolina to include The University of North Carolina at Chapel Hill, North Carolina State University at Raleigh, and The University of North Carolina at Greensboro. In the 1960's three additional campuses were added: The University of North Carolina at Charlotte, The University of North Carolina at Asheville, and The University of North Carolina at Wilmington.

Beginning in 1877, the General Assembly of North Carolina established or acquired ten additional separately governed state- supported senior institutions of higher education. They are: Appalachian State University, East Carolina University, Elizabeth City State University, Fayetteville State University, North Carolina Agricultural and Technical State University, North Carolina Central University, North Carolina School of the Arts, Pembroke State University, Western Carolina University, and Winston-Salem State University. Then, in 1971, the General Assembly redefined The University of North Carolina, and under the terms of that legislation all sixteen public senior institutions became constituent institutions of The University of North Carolina.

The constitutionally authorized Board of Trustees of the six campus University of North Carolina was designated the Board of Governors and this body is by law The University of North Carolina. The Board of Governors consists of thirty-two members elected by the General Assembly, and it is charged with "the general determination, control, supervision, management, and governance of all affairs of the constituent institutions." The chief executive officer of The University is the President.

Each constituent institution of The University has its own faculty and student body. The chief administrative officer of each institution is the chancellor, and the chancellors are responsible to the President.

Each constituent institution also has a board of trustees composed of thirteen members: eight elected by the Board of Governors, four appointed by the Governor, and the elected president of the student body *ex officio*. (The School of the Arts has two additional *ex officio* trustees.) The principal powers of these institutional boards are exercised under a delegation of authority from the Board of Governors.

BOARD OF TRUSTEES
THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

B. D. Schwartz, Chairman
F. P. Fensel, Vice Chairman
Mrs. Betty H. Cameron, Secretary

Class of 1989

John J. Burney, Jr.
John B. Codington
Mrs. Margaret F. Heyward
John D. Merritt
Justin Raphael
B. D. Schwartz

Class of 1991

John G. Ashby
Mrs. Betty H. Cameron
W. Albert Corbett
F. P. Fensel
Eugene E. Wright, Jr.
Mrs. Polly L. White

THE UNIVERSITY OF NORTH CAROLINA AT WILMINGTON

The University of North Carolina at Wilmington was founded in 1947 as Wilmington College, a locally supported and governed institution, to provide the youth and adults of New Hanover County and Southeastern North Carolina an opportunity for two years of university parallel study, semiprofessional training and vocational-technical education at moderate expense. From these beginnings and goals and through a series of transformations with ever-widening programs and aspirations, in 1969 it became a constituent institution of The University of North Carolina, whose purpose, resources, and direction it shares.

The University of North Carolina at Wilmington is a community of scholars dedicated to teaching, learning, creating, and extending knowledge through research. Its objectives are to stimulate curiosity, imagination, and creativity; to communicate both general knowledge and the facts and concepts particular to various disciplines and professional programs; to foster clear thinking, rational decision-making, and fluent, accurate communication; and to develop skills appropriate to the various disciplines and professional programs.

The programs offered by the University include four-year programs leading to the Bachelor of Arts and Bachelor of Science degrees within the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing; graduate programs leading to the Master of Education, the Master of Science, and the Master of Business Administration degrees; a variety of pre-professional programs; and special programs in a variety of areas, including Marine Science Research, Army ROTC, and Continuing Education. The University's recent development has made possible increasingly diverse contributions, some of international significance. Its aim is to continue and to improve its innovative programming and comprehensive approach to meeting the wide-ranging needs of the region, the state, and the larger community.

HISTORY AND BACKGROUND

Education on the college level first came to Wilmington in 1946 when a college center was established under the direction of the North Carolina College Conference and under the administration of the Directorate of Extension of The University of North Carolina at Chapel Hill. The center offered courses on the freshman level to some 250 students during the academic year 1946-47. In 1947 a tax levy was approved by the citizens of New Hanover County, and Wilmington College was brought into existence as a county institution under the control of the New Hanover County Board of Education. In 1948 Wilmington College was officially accredited by the North Carolina College Conference and became a member of the American Association of Junior Colleges. In 1952 the institution was accredited as a junior college by the Southern Association of Colleges and Schools.

In 1958 New Hanover County voted to place the college under the Community College Act of the State of North Carolina. By virtue of this vote, the college became a part of the state system of higher education, and control passed from the New Hanover County Board of Education to a board of twelve trustees, eight of whom were appointed locally and four of whom were appointed by the governor of the state. At the same time, the requirements for admission and graduation and the general academic standards of the college came under the supervision of the North Carolina Board of Higher Education, and the college began to receive an appropriation from the state for operating expenses in addition to the local tax.

On July 1, 1963, by an act of the General Assembly of North Carolina, Wilmington College became a senior college with a four-year curriculum, authorized to offer the bachelor's degree.

By vote of the Board of Trustees of The University of North Carolina in late 1968, with subsequent approval by the North Carolina Board of Higher Education, and by an act of the General Assembly of North Carolina in 1969, Wilmington College became, on July 1, 1969, The University of North Carolina at Wilmington. It, and the institution in Asheville previously designated as Asheville-Biltmore College, became the fifth and sixth campuses of The University of North Carolina.

On October 30, 1971, the General Assembly in special session merged, without changing their names, the remaining ten state- supported senior institutions into the university. Thus The University of North Carolina now comprises 16 institutions.

On August 22, 1977, the Board of Governors of The University of North Carolina authorized The University of North Carolina at Wilmington to offer its first graduate programs at the master's level.

ACADEMIC STANDING

The University of North Carolina at Wilmington is accredited by the Southern Association of Colleges and Schools and the North Carolina Association of Colleges and Universities. The School of Education is accredited by the National Council for Accreditation of Teacher Education. The University also holds membership in the American Assembly of Collegiate Schools of Business, the American Council on Education, the American Placement Council, and the Council for Advancement and Support of Education, and is on the list of schools approved by the American Chemical Society.

THE FACULTY

The University seeks to attract and maintain a faculty of outstanding individuals who are capable of contributing to the enrichment of its diverse and comprehensive instructional and research programs. Its faculty members come from all geographic sections of the United States and several foreign countries, bringing to this campus a rich variety of educational experiences, training and scholarship. Of the more than 336 instructional and research faculty, more than 69 percent hold doctoral degrees.

In addition to its primary responsibilities of teaching, the faculty actively engages in research and creative pursuits. Research interests are widespread in the various disciplines within the humanities, natural, physical, behavioral, and social sciences, and the professions. One of the major areas of interest is the marine sciences in which extensive research is conducted in such fields as marine biology, chemical and physical oceanography, and coastal environments. Many of these research activities culminate in the publication of books and scholarly articles and presentation of papers at professional associations, bringing acclaim to the University as well as the faculty. Certain other faculty members are widely recognized for their outstanding achievements in the literary, visual, and performing arts.

As an outgrowth of their professional training and/or University affiliation, UNCW faculty members serve the community at large in various ways. Many participate in artistic, business, educational, governmental, religious and other professional and humanitarian activ-

ities. Inasmuch as the University is dedicated to serving its total constituency, faculty members are encouraged to serve in an educational, advisory or informational capacity to enhance the welfare of the community at large.

BOARD OF TRUSTEES' TEACHING EXCELLENCE AWARD

The Board of Trustees of The University of North Carolina at Wilmington, in recognition of this institution's commitment to teaching excellence, has established the Board of Trustees' Teaching Excellence Award. Recipients of the award manifest excellence as a way of life and stand out among the faculty as persons who have made and continue to make a significant contribution to higher education through their dedication and service to students. The award carries with it both an honor and a responsibility: it specifies a member of the faculty as a person of excellence and it calls upon the person so honored to share that excellence with colleagues and students.

THE FOUNDATION CHAIR

The Foundation of The University of North Carolina at Wilmington is a charitable, nonprofit corporation established for the sole purpose of supporting the University. Through private donations it supports a faculty Chair, designated to assist the University in its long-range efforts concerning faculty development and recruitment. The Foundation Chair, which is currently allocated to the various academic disciplines on a rotating basis, enables the University to bring to this campus renowned scholars and performing artists. In filling the Chair a special effort is made to select individuals whose contributions will benefit not only the University, but also the community at large.

NOTE: For faculty directory see page 266.

THE CAMPUS

The University of North Carolina at Wilmington is located in the southeastern part of the state on a 650-acre tract on State Highway 132 (College Road) midway between the Cape Fear River and the Atlantic Ocean. The city of Wilmington is situated on the east bank of the Cape Fear River and is about 15 miles from Carolina Beach and 10 miles from Wrightsville Beach. The standard metropolitan area, of which Wilmington is a part, now has a population in excess of 97,400. Several main highways lead into the city, and commercial air service provides easy access to other metropolitan areas north, south, and west.

Ocean breezes and the nearness of the Gulf Stream give Wilmington a delightful year-round climate, and the area's proximity to the ocean provides unlimited recreational opportunities.

The spacious well-landscaped campus was first occupied by the University in 1961. The number of buildings has increased from three in 1961 to forty-three today. There are several athletic fields and ample space for parking.

BUILDINGS

The buildings on the campus are of modified Georgian architecture. All academic buildings, as well as the cafeteria and residence halls, are completely air-conditioned.

Edwin A. Alderman Hall, which houses administrative offices, is named in honor of a native Wilmingtonian who served as president of The University of North Carolina, The University of Virginia and Tulane University.

Hoggard Hall, an academic building named in honor of Dr. John T. Hoggard, second president of Wilmington College, contains classrooms, the School of Nursing, laboratories, the computing center, special programs, and faculty and staff offices.

Kenan Hall, named in honor of the late Mrs. Sarah Graham Kenan of Wilmington, is occupied by the Creative Arts Department. It contains classrooms, faculty offices, art and music studios, the music library, and electronic music studio, dramatic workshops and the S.R.O. Theatre. It also contains an auditorium with a seating capacity of approximately 100.

Will S. DeLoach Hall houses the department of Chemical and Physical Sciences. It is equipped with classrooms, faculty and staff offices, teaching auditoriums, and modern, well-equipped laboratories for the physical sciences.

Friday Hall, named in honor of UNC President Emeritus William C. Friday and his wife Ida, was completed in 1974. It houses the departments of Biological Sciences and Earth Sciences and contains classrooms and laboratories.

Arnold Kimsey King Hall houses the School of Education and contains an auditorium with a seating capacity of 191, classrooms, faculty offices, and a curriculum laboratory.

Isaac Bear Hall, completed in 1972, contains classrooms, a computer laboratory, and faculty offices for the Cameron School of Business Administration.

Morton Hall, named for Margaret Shannon Morton, was completed in October 1978 and houses the departments of English, History, Mathematical Sciences, and Modern Languages. The building contains classrooms, seminar rooms, and the Bryan Auditorium which seats 200.

The Social and Behavioral Sciences Building was completed in 1980. It houses the departments of Psychology, Philosophy and Religion, Political Science, and Sociology/Anthropology, as well as some offices of the campus computing center.

The Sarah Graham Kenan Auditorium, a gift from the Sarah Graham Kenan Foundation, has a seating capacity of 1,000 persons. The auditorium is also equipped for use as a theatre and contains seminar rooms for the Department of Creative Arts.

Hanover Hall and Trask Coliseum, the physical education complex, provide modern facilities for the athletic activities of all students, including a large playing floor with rollaway bleachers, a second athletic activity floor, offices, locker rooms and showers, and special gymnastic equipment.

The Raiford G. Trask Health and Physical Education Building provides the campus with a 6,000 seat coliseum as well as an olympic size swimming pool and a separate diving tank. Construction was completed in the fall of 1977.

The University Union is the newest and second largest building on campus. Serving as the "living room" of the University community, it houses a wide variety of services, student and administrative offices, while providing space for campus activities and meetings.

Hinton James Hall, named for a New Hanover County resident who was the first student to enroll at The University of North Carolina, houses the Financial Aid Office, Registrar Services, Undergraduate Admissions, Cashier, and the office of the dean of the College of Arts and Sciences.

A new University Student Support Center opened in the summer of 1985. Centrally located adjacent to the University Union, it houses the University Bookstore, Student Health Services, and Student Development Center.

The University Cafeteria, opened in 1971, provides space for food services for students and faculty and contains the most modern food service equipment.

The Edmond R. Galloway Residence Hall, opened in 1971, provides housing for 400 students. The Belk Residence Hall, opened in June 1976, accommodates 200 students. The 200-student residence hall, Addison Hewlett, Jr., Hall, opened in the fall of 1978. Another residence hall for 220 students, Frederick B. Graham Hall, was occupied in the fall of 1979. In the fall of 1981, the 400-student apartment complex was completed and occupied. Housing for an additional 160 students opened in the fall of 1985.

WILLIAM MADISON RANDALL LIBRARY

The William Madison Randall Library, recently expanded and completely renovated, is named for the President Emeritus of Wilmington College. The new facility provides seating for approximately 950 users and will accommodate a collection of 475,000 volumes in addition to separate collections of government publications (federal and state), curriculum materials, microformat materials, and audiovisual materials and equipment. The Library now contains over 305,000 hardbound volumes in open stack areas. Rare and unique items are housed in the Helen Hagan Rare Book Room.

Some 4,750 serial titles are currently on subscription, and extensive journal backfiles are maintained in bound volumes and in microformat. Copy machines are available for both hardbound and microformat publications.

The Randall Library is a partial depository for United States government publications, and the collection now consists of over 300,000 items. These materials are always available to all of the Library's users.

A growing audiovisual collection containing materials in several formats is conveniently located on the first floor. A 73-seat auditorium is equipped for various types of audiovisual use.

The Randall Library is open over 98 hours per week during the regular academic sessions. Several reference librarians are available to provide assistance and guidance to students and faculty who need their services.

The Library has recently implemented a minicomputer-based online catalog and circulation system, which allows easy, efficient access to most of the Library's various collections.

HERBERT BLUETHENTHAL MEMORIAL WILDFLOWER PRESERVE

The Herbert Bluethenthal Memorial Wildflower Preserve is a tract of approximately 10 acres set aside on the campus by the University's Board of Trustees in response to a donation by Mrs. Herbert Bluethenthal of Wilmington. The Preserve includes a wide variety of plant communities, marked trails to follow, and labeled plants to observe. It is dedicated to the preservation of the rich and varied flora of Southeastern North Carolina and has been designed to provide a place of contentment and pleasure for those who enjoy and appreciate our native plants.

ADMISSIONS

ADMISSIONS

The University of North Carolina at Wilmington seeks to admit students with the intellectual ability to perform in the collegiate community. Students must have the motivation and the determination to avail themselves of the learning experiences that will be beneficial to them if they are to attain both academic and personal enrichment. As a state-supported institution, the University is aware of its obligation to provide an educational opportunity to all qualified applicants who will benefit from the program of study offered on the Wilmington campus.

Applicants may apply to enter the University at the beginning of the fall or spring semester and at the beginning of each summer term. Applications for fall semester must be filed by May 1; applications for spring semester must be filed by November 1. Students desiring to enroll in summer school must make application prior to the summer session registration date. The academic qualifications of each applicant are carefully reviewed by admissions personnel in a conscientious effort to admit students who have the potential for further academic achievement and growth.

Over enrollment or state budgetary constraints may require the restriction of admissions during a given year. This may require the adjustment of minimum requirements or the establishment of earlier application deadlines. An immunization record for each newly admitted UNCW student is required by law to be on file at UNCW prior to enrollment.

APPLICATION DATES

A. For Freshman, Transfer, and Unclassified Applicants for Fall, 1989

1. Application complete by December 1; Decision mailed by February 15.
2. Application complete by February 15; Decision mailed by April 15.
3. Applications received/or completed after February 15, and up to May 1, will be reviewed after April 15, on a "space available" basis. Decisions on these applications, only, will be mailed on a rolling basis.
4. **Non-Refundable $25.00 Tuition Deposit due May 1 from all admittees intending to enroll at UNCW in the Fall, 1989.**

B. For Re-Enrolling Students for Fall, 1989

1. Apply by May 1; Decision by June 30.
2. No Tuition Deposit Required.

C. For All Spring (January) Semester Applicants, 1989

1. Apply by November 1; Decision by December 15.
2. Tuition Deposit due December 30.

D. For all Summer Session(s) Applicants

Summer Session I — Apply by May 15 ; Rolling Decision.
Summer Session II — Apply by June 15 ; Rolling Decision.
No tuition deposit—Full payment due at registration.

E. For Permission (Visitor) Students for Summer I and Summer II, 1989

Summer Session I — Apply Prior to May 19
Summer Session II — Apply Prior to June 16
No Tuition Deposit required from Permission/Visitor Students.

ADMISSIONS-FRESHMEN

The requirements for admission to The University of North Carolina at Wilmington **prior** to Fall of 1990 are:

(1) Graduation from an approved or accredited high school, or a GED certificate*.

(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).

(3) An overall "C" average on all work attempted in grades 9-12.

(4) The following specific high school units:
4 units in English
*2 units in one foreign language
2 units in Mathematics (Algebra I and Geometry or Algebra II)
2 units in Social Science (including 1 unit in U.S. History)
2 units in Science (1 in Biology; 1 in a Physical Science)

*Students who meet all minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they may graduate with the baccalaureate degree. GED candidates must have been out of school two full years since their class graduated.

Admissions requirements will change, effective Fall 1990 semester. These new requirements are outlined at the end of this Admissions section.

Application Procedure for Freshmen

Applicants are required to comply with the following:

1. Submit a completed application form by the deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.

2. Have the secondary school officials submit an official transcript of secondary school work or GED. The transcript must be sent directly to the Office of Admissions, The University of North Carolina at Wilmington, 601 S. College Road, Wilmington, North Carolina 28403-3297.

3. Take the Scholastic Aptitude Test (SAT) of the College Entrance Examination Board or the ACT of the American College Testing Program. Because of deadlines for filing application to take the tests, arrangements must be made well in advance of the testing date so that the application is received by the testing company in time. Applicants are accepted to UNCW on the basis of their junior or senior SAT or ACT scores. For information about the SAT, contact the secondary school guidance counselor or write or call College Board ATP, P.O. Box 592, Princeton, New Jersey 08540, (609) 771-7600. Students who live in the Western, Southwestern or Pacific Coast states should write or call College Board ATP, P.O. Box 1025, Berkeley, California 94701, (415) 849-0950. For information about the American College Testing Program, write The College Testing Program, Program Services Department, P.O. Box 168, Iowa City, Iowa 52243.

It is important that the high school transcript, or GED, and test scores reach the University by the application deadline date so that all matters relating to the application may be complete before the opening of the semester in which the student expects to enroll.

ADMISSIONS-TRANSFER STUDENTS

Students wishing to transfer to The University of North Carolina at Wilmington from another institution must meet the following requirements for admission: (1) must be eligible to return to the institution last attended and (2) must have attained at least a C" average (2.0 on 4.0 system) based on all courses attempted at all institutions attended. Transfer students with less than 24 semester hours (or 36 quarter hours) of transferable credit must also meet the freshman entrance requirements.

Students seeking admission by transfer of credits are required to have all transcripts of previous college or university work forwarded to the Office of Admissions by the Registrar of each institution they have attended. Even though no transfer of credit may be involved, all previous college or university work must be certified by transcripts or records of attendance. **An official high school transcript or GED must also be submitted.**

Application Procedure for Transfer Students

Students wishing to transfer are required to comply with the following procedures:

1. Submit a completed application form by the application deadline date. A $15.00 (NON-REFUNDABLE) application fee must accompany the application.
2. Submit a completed University questionnaire. This questionnaire is included in the transfer admissions packet.
3. Have an official transcript from each college or university attended, including summer school, submitted. It is the applicant's responsibility to request that the Registrar of each institution attended send an official transcript directly to the Office of Admissions by the application deadline date.
4. Have an official high school transcript or GED, including test scores, sent to the Office of Admissions by the application deadline date.

Official credit evaluation of transcripts will be done after admission when tuition deposit is received from student.

ADMISSIONS-NURSING, BUSINESS ADMINISTRATION, EDUCATION

Admission to the Bachelor of Science Degree Programs in Nursing or Business Administration, and the Bachelor of Arts Degree Program in Education requires application to and acceptance by the School of Nursing, School of Business, or School of Education in addition to acceptance by the University.

ADMISSIONS-FORMER STUDENTS (Re-enrolling)

Former UNCW students who wish to return to the University must apply to the Office of Admissions for readmission prior to May 1 for the fall semester or November 1 for the spring semester. Those who have attended another college or university since their last enrollment at UNCW are required to submit official transcripts from such institutions before they can be considered for readmission. **A "C" average (2.0 out of 4.0 system) must have been attained on all work from other institutions attended.**

The Three-year Rule

Any UNCW degree student who has been out of school for at least three years and has not attended any other institution since leaving UNCW is eligible to re-enter under the "three-year rule." Any former student of an accredited college or university who has not attended school for at least three years is also eligible to enter UNCW under the "three-year rule."

The student who elects to have the three-year rule applied will have neither a quality point deficit to overcome, nor hours of credit for those courses in which "D" grades were attained. Only courses in which a grade of "C" or better was earned will be counted toward graduation. Nevertheless, this option will not alter the student's original academic record.

The quality point average will begin at the time studies are resumed, and the student will be required to maintain a "C" average on a semester basis to be eligible to continue. Degree requirements will be those in effect at the time the student reenrolls.

The three-year rule option must be exercised at the time the student applies for admission to the University. Once exercised, it may not later be reversed.

ADMISSIONS-UNCLASSIFIED STUDENTS

Individuals may enroll in the University as unclassified students by meeting the appropriate requirements for admission as stated below:

1. A transfer student who has not been enrolled in an institution of higher education for at least one year and who has not been academically suspended within the last three years may apply for admission as an unclassified student.
2. A high school graduate who has not attended an institution of higher education and has been graduated at least two years may apply for admission as an unclassified student. GED candidates must have been out of school two full years since their class graduated.
3. Official college transcripts (transfers) and high school transcript or GED (transfers *and* freshmen) must be sent to the Office of Admissions by the application deadline date.

Students who enroll as unclassified students may take any undergraduate course as long as the prerequisite listed in the course description is honored. **Unclassified students are limited to two courses per semester or summer term. An unclassified student may apply for admission as a degree candidate upon completing a minimum of 15 semester hours with a "C" average on all work attempted.** The student must complete English 101-102 and three semester hours of basic mathematics with a "C" or better before being considered for admission as a degree candidate. An unclassified transfer student who has completed English 101-102 and three semester hours of basic mathematics with a "C" or better will be considered as having met this requirement. However, requirements for transfer students to become degree candidates will vary depending on the previous college performance.

To avoid delay in having applications considered for change-over admission to degree candidates, unclassified students are advised to apply prior to the application deadline established for the semester. **The maximum number of hours allowed students in the unclassified category is 30 semester hours.** When this limit is reached, the students must be eligible to apply for admission consideration as degree candidates or terminate their enrollment at the University.

Unclassified students are subject to the academic regulations of the University as applicable.

ADMISSIONS-SPECIAL STUDENTS

Any individual who already possesses a degree from a four-year accredited college and wishes to enroll for an undergraduate course at UNCW or any individual with a degree who wishes to work toward a second baccalaureate degree must apply to the Office of Admissions before the application deadline date. An official transcript from the degree-granting institution must be sent from that institution to the Office of Admissions by the deadline date. Second degree candidates must have transcripts from all colleges attended submitted by application deadline date.

ADMISSIONS-PERMISSION/VISITING STUDENTS

During the summer sessions, students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. Applicants from other colleges or universities must obtain prior written approval from their dean to take courses at UNCW. The University assumes no responsibility in determining a student's course selection when

such credits are to be transferred elsewhere. Summer visitor applications and schedules are available by February of each year from the Office of Academic Affairs or the Admission Office. Enrollment by permission from another institution in no way obligates the University to continue one's enrollment at UNCW after the expiration of the permission period. A student may not continue to attend as a permission/visitor student beyond two consecutive summer sessions. To apply for fall or spring semester visitor status, transfer requirements must be met.

ADMISSIONS-SPECIAL HIGH SCHOOL STUDENTS

Selected high school seniors who wish to pursue an academic program on the collegiate level while attending high school may enroll at UNCW if they meet the qualifications for participation in this program. Because of distance, this program is available primarily to students in the Wilmington area. Special applications for admission are available in the office of the high school counselor. Students may enter this program at the beginning of the fall, spring or summer terms. Application deadline dates must be honored.

ADMISSIONS-INTERNATIONAL STUDENTS

The University of North Carolina at Wilmington welcomes interest and inquiry from international students. In addition to meeting regular freshman or transfer academic admission requirements, international students must present evidence of their ability to speak, read, and write the English language and to meet fully the financial obligations associated with their study at the University. Students from foreign countries must present the results of the TOEFL examination (Test of English as a Foreign Language) as a part of their application for admission. A financial responsibility statement and proof of accident and hospital insurance must be submitted. All materials for admission consideration must be in the Office of Admissions at least three (3) months prior to the date of registration for the entering semester or term. It is recommended that international students plan to begin their studies in a fall semester.

ADMISSIONS-SENIOR CITIZENS

Residents of North Carolina age 65 or older who meet applicable admission requirements may enroll tuition free on a space available basis. The availability of class space cannot be determined until after registration.

ADMISSIONS-AUDIT STUDENTS

Students who wish to take courses without receiving credit should apply to the Office of the Registrar immediately after the semester registration date. Audit students are admitted on a "space-available" basis.

ADMISSIONS-GRADUATE STUDENTS

All inquiries concerning admission to graduate programs should be directed to the Office of Graduate Studies. Admissions requirements are stated in the Graduate Studies section.

NONDISCRIMINATION POLICY

UNCW is dedicated to equality of opportunity within its community. Accordingly, UNCW does not practice nor condone discrimination in any form against students, employees, or applicants on the grounds of race, color, national origin, religion, sex, age, handicap or veteran status. UNCW commits itself to positive action to secure equal opportunity regardless of those characteristics. For additional information, contact the Federal Compliance Officer.

AFETY AND HEALTH PROGRAM

UNCW's safety program complies with the State Occupational Safety and Health Act 1973.

Any student who supplies false or misleading information or who conceals pertinent facts in order to enroll in The University of North Carolina at Wilmington will be subject to immediate dismissal from the University.

FRESHMAN ADMISSION REQUIREMENTS

for

The University of North Carolina at Wilmington

Fall 1990 Semester

The requirements for Freshman admission to The University of North Carolina at Wilmington for the Fall 1990 semester are:

(1) A diploma from an approved or accredited high school or a GED Certificate.**

(2) A satisfactory score on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT).

(3) An overall "C" average on all work attempted in grades 9-12.

(4) The following specific high school units:

Four (4) course units in *English,* emphasizing grammar, composition, and literature;

Three (3) course units in *mathematics,* including:
-algebra I
-algebra II, and
-geometry, or a higher level mathematics course for which Algebra II is a prerequisite.

Two (2) course units in *social studies,* including one (1) unit in U.S. History

Three (3) course units in science, including:
-at least one (1) unit in a life or biological science (for example, biology)
-at least one (1) unit in a physical science (for example, physical science, chemistry, physics)
-at least one (1) laboratory course.

In addition, it is *recommended* that prospective students complete at least *two (2)* course units in one foreign language, and* take *one (1) foreign language* course unit and *one (1) mathematics* course unit in the twelfth grade.

*Students who meet all the minimum requirements except foreign language will be accepted with a deficiency and will be required to complete a foreign language sequence of 101 and/or 102 before they are graduated with the baccalaureate degree from UNCW.

**GED candidates must have been out of school two full years since their class graduated.

EXPENSES

EXPENSES

The Board of Governors of the University reserves the right to change the charges for tuition fees and the room and board rate at any time without prior notice.

TUITION AND FEES (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full Time Charges Per Semester (12 or more semester hours):

	In-State Students	Out-of-State Students*
Tuition	$216.00	$1,966.00
Mandatory Fees	239.50	239.50
Total	$455.50	$2,205.50

Other fees:

Application Fee (to accompany application, nonrefundable)	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Undergraduate students registering for 12 or more semester hours will be charged at the full-time rate as shown above. Students scheduling fewer than 12 semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
1 - 5	$101.50	$539.50
6 - 8	314.50	1,189.50
9 - 11	401.50	1,714.50

*See information on residency at the end of this section.

The privileges of students taking fewer than six hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $18.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full prior to preregistration or registration for a new term.

N-CAMPUS LIVING

Two meal plans are available for residence hall students. The rates per semester are follows:

Room and Board:	15 meals	$1,235.00
Room and Board:	21 meals	$1,260.00

Three meal plans are available for apartment students. The rates per semester are as lows:

Apartment and Board:	10 meals	$1,335.00
Apartment and Board:	15 meals	$1,360.00
Apartment and Board:	21 meals	$1,385.00

The University reserves the right to change the on-campus living rate at any time without ior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident udents not on a seven-day plan. Food service is also available seven days per week on cash basis to non-resident students.

An advance room reservation deposit of $100.00, to be applied to the room and board count, must be remitted by each applicant, along with the complete application for room id board.

Those interested in obtaining information should contact:
Housing Office
The University of North Carolina at Wilmington
601 South College Road
Wilmington, North Carolina 28403-3297

UMMER SESSION

Summer session tuition, fees, refund policy, and room and board rates will be announced the Summer Session Bulletin.

EFUNDS-TUITION

A student who officially withdraws from the University on or before the last day of the gistration (Drop/Add) period will receive a refund of the amount paid.

Students withdrawing from the University after the Drop/Add period will be charged 10% all semester charges for each week of classes that have been held that semester. This eekly charge begins with the first day of scheduled classes regardless of the actual date enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled asses.

This refund policy applies to complete withdrawals from UNCW. If you simply reduce our course load after the Drop/Add period, you will receive NO refund or reduction of es whatsoever.

EFUNDS-FINANCIAL AID

Students who receive financial aid are not given refunds on financial aid received when harges are prorated due to withdrawal.

REFUNDS-HOUSING

Housing arrangements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except as provided for below:

1. New Students (Incoming Freshment and Transfers) - If a new student, after remitting the deposit and being accepted to on-campus housing, decides not to live on campus and gives notice of this decision **in writing** by May 27, 1988 in the case of application for the fall semester, or at least one month prior to the semester in case of the application for the spring semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for refund received after May 27, 1988 will be denied and the $100.00 deposit forfeited. This condition also applies to students remitting the deposit and being accepted to on-campus housing after May 27, 1988.

2. Returning Students (Students currently or previously enrolled at UNCW) - The $100.00 housing deposit is non-refundable" to returning students after being accepted to on-campus housing. (Exceptions being marriage, transfering to another institution or withdrawal from UNCW - less $25.00 administrative fee). Notification must be received in the Housing Office, **in writing,** by May 27, 1988.

3. Room rent for either semeter will not be refunded once a student officially moves into a residence hall/apartment.

4. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

RESIDENCE STATUS FOR TUITION PURPOSES

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the instituion of that statement to be conditioned by the following:

Residence. To qualify as a resident for tuition purposes, a person must become a legal resident and remain a legal resident for at least 12 months immediately prior to classification. Thus, there is a distinction between legal residence and residence for tuition purposes. Furthermore, twelve months legal residence means more than simple abode in North Carolina. In particular it means maintaining a domicile (permanent home of indefinite duration) as opposed to maintaining a mere temporary residence or abode incident to enrollment in an institution of higher education." The burden of establishing facts which justify classification of a student as a resident entitled to in-state tuition rates is on the applicant for such classification, who must show his or her entitlement by the preponderance (the greater part) of the residentiary information.

Initiative. Being classified a resident for tuition purposes is contingent on the student's seeking such status and providing all information that the institution may require in making the determination.

Parents' Domicile. If an individual, irrespective of age, has living parent(s) or court-appointed guardian of the person, the domicile of such parent(s), or guardian is, prima facie, the domicile of the individual; but this prima facie evidence of the individual's domicile may or may not be sustained by other information. Further, nondomiciliary status of parents is not deemed prima facie evidence of the applicant child's status if the applicant has lived (though not necessarily legally resided) in North Carolina for the five years preceding enrollment or re-registration.

Effect of Marriage. Marriage alone does not prevent a person from becoming or continuing to be a resident for tuition purposes, nor does marriage in any circumstances insure that a person will become or continue to be a resident for tuition purposes. Marriage and the legal residence of one's spouse are, however, relevant information in determining residentiary intent. Furthermore, if both a husband and his wife are legal residents of North Carolina and if one of them has been a legal resident longer than the other, then the longer duration may be claimed by either spouse in meeting the twelve-month requirement for in-state tuition status.

Military Personnel. A North Carolinian who serves outside the State in the armed forces es not lose North Carolina domicile simply by reason of such service. And students m the military may prove retention or establishment of residence by reference, as in er cases, to residentiary acts accompanied by residentiary intent.

Grace Period. If a person (1) has been a bona fide legal resident, (2) has consequently en classified a resident for tuition purposes, and (3) has subsequently lost North Carolina al residence while enrolled at a public institution of higher education, that person may ntinue to enjoy the in-state tuition rate for a grace period of twelve months measured m the date on which North Carolina legal residence was lost. If the twelve months end ring an academic term for which the person is enrolled at a State institution of higher ucation, the grace period extends, in addition, to the end of that term. The fact of marriage one who continues domiciled outside North Carolina does not by itself cause loss of al residence, marking the beginning of the grace period.

Minors. Minors (persons under 18 years of age) usually have the domicile of their rents, but certain special cases are recognized by the residence classification statute determining residence for tuition purposes.

a) If a minor's parents live apart, the minor's domicile is deemed to be North Carolina the time period(s) that either parent, as a North Carolina legal resident, may claim and es claim the minor as a tax dependent, even if other law or judicial act assigns the nor's domicile outside North Carolina. A minor thus deemed to be a legal resident will t, upon achieving majority before enrolling at an institution of higher education, lose rth Carolina legal residence if that person (1) upon becoming an adult acts, to the extent t the person's degree of actual emancipation permits, in a manner consistent with bona e legal residence in North Carolina" and (2) begins enrollment at an institution of higher ucation not later than the fall academic term following completion of education prereq- ite to admission at such "institution."

b) If a minor has lived for five or more consecutive years with relatives (other than rents) who are domiciled in North Carolina and if the relatives have functioned during s time as if they were personal guardians, the minor will be deemed a resident for tuition rposes for an enrolled term commencing immediately after at least five years in which se circumstances have existed. If under this consideration a minor is deemed to be a sident for tuition purposes immediately prior to his or her eighteenth birthday, that person achieving majority will be deemed a legal resident of North Carolina of at least 12 nths duration. This provision acts to confer in-state tuition status even in the fact of ier provisions of law to the contrary; however, a person deemed a resident of 12 months ration pursuant to this provision continues to be a legal resident of the State only so g as he or she does not abandon North Carolina domicile.

Lost but Regained Domicile. If a student ceases enrollment at or graduates from an titution of higher education while classified a resident for tuition purposes and then both andons and reacquires North Carolina domicile within a 12-month period, that person, e or she continues to maintain the reacquired domicile into re-enrollment at an institution higher education, may re-enroll at the in-state tuition rate without having to meet the ual 12-month durational requirement. However, any one person may receive the benefit this provision only once.

Change of Status. A student admitted to initial enrollment in an institution (or permitted re-enroll following an absence from the institutional program which involved a formal hdrawal from enrollment) must be classified by the admitting institution either as a sident or as a nonresident for tuition purposes prior to actual enrollment. A residence tus classification once assigned (and finalized pursuant to any appeal properly taken) ay be changed thereafter (with corresponding change in billing rates) only at intervals rresponding with the established primary divisions of the academic year.

Transfer Students. When a student transfers from one North Carolina public institution higher education to another, he or she is treated as a new student by the institution to ich he or she is transferring and must be assigned an initial residence status classification tuition purposes.

The initial classification of undergraduate students as in- state or out-of-state residents for tuition purposes is made by the Admissions Office. Appeals for in-state status may be made to the campus appeals body, Out-of-State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for "Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available for inspection upon request in the Admissions Office and in the Randall Library.

FINANCIAL AID

FINANCIAL AID

The UNCW Financial Aid Office administers a program of financial assistance which seeks to meet the needs of all enrolled students. While the program provides for the recognition of talent and outstanding student achievement, its primary objective is to assist students with demonstrated need. In assisting students, the office analyzes and validates the financial need of the applicants and their families through the use of financial statements, related documents, and the interview process. Utilizing this information, awards are constructed to enable a student to bridge the gap between the student and family's resources and the cost of attendance. This assistance may be in the form of scholarships, grants, loans, work study jobs, or a combination of any of these programs.

To apply for financial aid a student must complete the College Scholarship Service Financial Aid Form and submit other documentation as may be requested by the Financial Aid Office. Detailed information on programs, policies, and procedures are printed in "Your Guide to Financial Aid" which may be obtained from the Financial Aid Office. Questions concerning the financial aid program at UNCW should be directed to the Financial Aid Office, The University of North Carolina at Wilmington, 601 S. College Rd., Wilmington, N.C. 28403–3297, (919) 395-3177.

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general **Minority Presence Grant Program,** black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

AMERICAN INDIAN STUDENT LEGISLATIVE GRANT

The General Assembly of North Carolina has provided funds for a number of grants to needy resident North Carolina Indian students. Eligibility is limited to degree students who maintain cultural identification as an American Indian through membership in an Indian tribe recognized by the State of North Carolina or by the federal government or through other tribal affiliation.

GRANTS

Pell Grants provide federal grants for students who show need for assistance in attending college. This grant is intended to cover the period required to complete the first undergraduate baccalaureate degree; however, students are limited to five full years of entitlement under this grant program. Students must be enrolled for at least six hours and must be making sastisfactory progress in their academic program. In addition, a student must be a U.S. citizen or in the United States for other than a temporary purpose. Awards are based on demonstrated financial need which is determined by a national formula applied uniformly to all applicants.

The Supplemental Educational Opportunity Grant Program provides aid to students who show need for assistance in attending college. Supplemental grants range in value from $100 to $4,000 per year, with the cumulative maximum of $12,000. To be eligible for a grant at UNCW, a student must be enrolled for at least six hours and must be a citizen or permanent resident of the United States. The application and Financial Statement must demonstrate exceptional financial need. Full time student applicants are given priority when funds are limited.

The North Carolina Student Incentive Grant Program is administered by College Foundation, Inc., for legal residents of North Carolina accepted or enrolled full time and in good standing in an undergraduate program of study. Students must demonstrate substantial financial need" as determined through the Financial Aid Form of the College Scholarship Service or the Family Financial Statement of American College Testing Program. Students should see that the completed Financial Statement is sent with the processing fee as soon after January 1 as possible, but not later than March 15; late filers will be considered if funds are available.

UNCW Grants provide needy and worthy students with awards which cover tuition costs. To be eligible for one of these grants a student must be enrolled for at least 12 hours and have at least a 2.0 grade point average. Competition for these grants, however, generally results in higher grade point requirements.

Athletic Grants-In-Aid are awarded to qualified students selected by members of the coaching staff. Additional information may be obtained by writing to the Director of Athletics.

The North Carolina National Guard Tuition Assistance Program is a state funded Tuition Assistance Program for active members of the North Carolina Guard. This program willl pay the cost of tuition per academic year for a maximum of four years. For additional information contact:

Office of the Adjutant General
North Carolina National Guard
Attn.: AGRR
P.O. Drawer 26268
Raleigh, N.C. 27611
(919) 733-3770—Ext. 175

GENERAL SCHOLARSHIPS

UNCW Scholarships are awarded to students for talent and outstanding achievement. These scholarships are equal to the cost of tuition and are awarded through the Financial Aid Office by various departments, organizations, and campus publications.

The H.M. & Pearl Kyle Foundation Scholarship is awarded annually to a worthy and deserving student. It is the intent of the donors that the scholarship be awarded to a person who can establish some sense of need and who is from eastern North Carolina or eastern South Carolina. Because the scholarship may be renewed on the strength of academic performance and continued need, a new recipient may not be named every year.

The Pilot Club Scholarship is awarded annually by the Pilot Club of Wilmington to a worthy and deserving student. Students with a handicap are given special consideration in the awarding of this scholarship.

The Zonta Scholarship is awarded annually to a UNC-Wilmington female student of junior or senior standing, or a female graduate student enrolled in an approved program. She should be enrolled at least half time and have an overall grade point average of 3.0, have leadership potential, be of high ethical standards, and show promise in her chosen profession.

The University Women of UNCW Scholarship is awarded annually to a female undergraduate student enrolled full time who has completed at least 60 semester hours. First consideration will be given to the student who demonstrates academic ability with financial need as second consideration. The non-traditional student will be given priority.

The Lucille Murchison Marvin Scholarship is awarded each year to two students at UNCW who have a grade point average of at least 3.0 and who demonstrate scholarship ability and financial need.

The Eliza Collins Scholarship is awarded yearly to several students who demonstrate scholastic ability and need.

The Henry Harrell, Sr., and Alma M. Harrell Scholarship is awarded annually to students who have a grade point average of 3.0 or better and have an exceptional financial need.

The C. M. and M. D. Suther Scholarship is awarded annually to deserving high school graduates who would not otherwise be able to attend college. The scholarship amount will be approximately $950.00 annually.

The Devereux Haigh Lippitt Scholarship is awarded annually to a North Carolina student based on academic achievement. This scholarship covers the in-state cost of tuition and fees and is given in memory of Mr. Devereux Haigh Lippitt by his family.

The Elizabeth Dudley Urquhart Memorial Scholarship Fund provides a tuition and fees scholarship to an academically talented student who demonstrates financial need. The recipient must have completed the last two years of high school in a New Hanover County Public school.

The Eddie Godwin, III Memorial Scholarship of $1,000.00 is awarded annually to a graduate of New Hanover High School. Applicants must be able to demonstrate financial need through the regular financial aid process. Applicants should also show evidence of self help and acceptable academic standing. Though not required, athletic participation at the high school level is desirable.

The Alumni Association Academic Scholarship Program provides annual, renewable in-state tuition and fees scholarships based on academic achievement and potential. Students must be classified as North Carolina residents for tuition purposes. Applications, secured from the UNCW Alumni Affairs Office, must be completed and returned to that office by March 15.

The Mary Courtney Hardison Scholarship(s) are intended for female freshmen students who are graduates of any accredited high school in New Hanover County. Preference should be given to female students who have been active in high school activities, including organized athletics. Recipient(s) shall be selected based on a combination of academic achievement and demonstrated financial need.

The Army ROTC Scholarship and Simultaneous Membership Program. The Department of Military Science can assist UNCW students in applying for one of the Army's more than 12,750 Army ROTC Scholarships given annually. All academic majors are accepted and students can apply for two and three year scholarships. For more information contact the professor of Military Science. Additionally, students might consider the Simultaneous Membership Program. By participating in the UNCW ROTC program and simultaneously enlisting in the North Carolina Army National Guard or United States Army Reserve, a student can receive up to $20,000 over a four year period. The National Guard and United States Army Reserve offer tuition assistance, loan repayment programs, enlistment bonuses, drill pay and the opportunity to receive the benefits of the G.I. Bill. For more information, contact the professor of Military Science.

The New Hanover Memorial Hospital Auxillary Scholarship of $500 is awarded each year to a student pursuing studies in a health related field. Candidates must be graduates of a New Hanover County High School, be of good character, and be active in school and community activities. Entering freshmen must be in the top 10 percent of their graduating class and have scored at least 900 on the SAT. In the event that more than one student qualifies academically, need shall be a determining factor. This scholarship is renewable contingent on continuing satisfactory academic progress. Consequently, this scholarship may not be open each year to new candidates. Inquiries and request for application forms should be directed to the Financial Aid Office.

The Rotary Club of Wilmington provides an annual tuition and fees scholarship to an undergraduate applicant who demonstrates academic strength, good character traits, and financial need.

The Wilmington Business and Professional Women USA Scholarship of $1,000 is awarded annually to a female student who plans to pursue a business or professional career. Applicants must demonstrate financial need, academic achievement, and clearly stated educational goals. Applications may be obtained from the Financial Aid Office.

The Wilmington Woman's Club Scholarship is awarded to a New Hanover County high school graduate who demonstrates academic achievement and financial need. A recipient may continue to receive this scholarship if a 3.0 grade point average is maintained.

COLLEGE OF ARTS AND SCIENCES SCHOLARSHIPS

The Department of Biological Sciences annually awards three scholarships. The **Herbert Mintzes Memorial Award** is made to the rising sophomore with the highest standing in the sequence of introductory biology courses (BIO 205, 206, 207); the recipient is chosen by the course instructors. The **Dovie P. Bowden Scholarship** is awarded to a student of junior standing on the basis of scholarship and need; eligible students should contact the department chairman to apply. The **Franklin H. Allen Scholarship** is awarded to a rising senior on the basis of grade point average and other evidence of achievement; the recipient is chosen by a faculty committee.

The Hutaff Scholarship Program awards annual scholarships to a student who has been accepted into the UNCW School of Nursing and four scholarships to students in the humanities. Recipients will be selected on demonstrated financial need and academic and leadership potential.

The Wilmington Coca-Cola Scholarship is awarded to a student enrolled in one of the humanities. Character, leadership and demonstrated financial need will be factors in determining recipients. Consideration will also be given to candidates who have shown evidence of self help.

The Ernest Stephen Prevost Scholarship is awarded to an undergraduate student majoring in chemistry. The recipient will be selected based on a demonstrated financial need and proven academic ability. For information contact the Chairman of the Chemistry Department.

The Cape Industries Scholarship is awarded to a chemistry major at UNCW who has a high grade point average. Interested students should contact the Department of Chemical and Physical Sciences.

The LAQUE Scholarship is an annual scholarship awarded to a chemistry major. Students interested in applying for this scholarship should contact the chairman of the Department of Chemical and Physical Sciences.

The American Society for Qualified Control Scholarship. The Wilmington section of the American Society for Quality Control has established an academic scholarship for a rising senior majoring in math with a strong background in statistics or for a rising senior in the field of business. The amount of the award will be the equivalent of in-state tuition for two semesters. Interested applicants should contact the chairman of the Department of Mathematical Sciences.

The Helena R. Cheek Memorial Scholarship is awarded by the Department of Modern Languages to a student who demonstrates special ability in the area of foreign language study and overall academic excellence. This scholarship is given in memory of Helena R. Cheek by her family and friends.

The William F. Adcock, Jr., Music Scholarship is awarded to a student who plans to graduate from UNCW with an emphasis in music and who has no more than 36 hours to complete for graduation. The award will be based upon overall excellence in music, above-average academic record and acceptable performance standards.

The A.J. Fletcher Music Scholarship is a competitive scholarship awarded to music majors who demonstrate through audition and scholastic record high proficiency in music performance and strong achievement in academic work.

The J. Rupert Bryan Scholarship is awarded to a political science major with financial need. Candidates must be able to demonstrate creativity, curiosity, and academic worthiness.

The James E. L. Wade Scholarships in History and Political Science are awarded to high school seniors who have a B average or above on high school work, an interest in history or political science as a major, and financial need. For additional information, contact the appropriate department chairman.

The J. Marshall Crews Scholarship is awarded annually to a major in the Department of Mathematical Sciences. Selection is based upon academic excellence, extra-curricular activities, and faculty recommendation. Applicants seeking further information should contact the Department of Mathematical Sciences.

The Fred Toney Scholarship is awarded each year based upon balloting by the faculty of the Department of Mathematical Sciences. Criteria include academic excellence and extracurricular activities. Inquiries should be directed to the chariman, Department of Mathematical Sciences.

The R & E Electronics Scholarship is an annual scholarship awarded primarily to a minority sophomore student in pre-engineering studies who graduated from a North Carolina high school. The scholarship is based on academic ability and financial need.

The Scholarships for Research in Science and Civilization are available to students interested in research conducted by the Program in Science and Culture. Candidates for the two scholarships are selected on a competitive basis; preference will be given to students with at least sophomore standing. An annual stipend of $1500 may be renewable contingent upon the availability of funds as long as the recipients remain undergraduate students at UNCW, maintain satisfactory academic standing and adequate performance. For additional information, contact Dr. Ralph Brauer, Director, Program in Science and Culture.

The Wilmington Arts Association Scholarship is awarded to a junior or senior majoring in the arts division of the creative arts department. Academic excellence and artistic merit will be criteria for determining recipients.

CAMERON SCHOOL OF BUSINESS SCHOLARSHIPS

The W. A. Corbett Scholarship is awarded annually to a junior or senior in the Cameron School of Business Administration with a grade point average of 3.0 or better who is planning a career in the field of business. For information and application forms, contact the Office of Financial Aid or the dean of the Cameron School of Business Administration.

The William S. Holland Scholarship for accounting majors, established in honor of William S. Holland, retired partner of Cherry, Bekaert and Holland, Certified Public Accountants, and a member of the first graduating class of Wilmington College, is awarded annually. For information and application forms, contact the chairman of the Department of Accountancy.

The Jesse L. Marshall Scholarship is awarded to a junior or senior in the Cameron School of Business Administration who has demonstrated both financial need and scholastic ability. Applicants may apply to the dean of school.

The Lower Cape Fear Personnel Association Scholarship, established for students planning to concentrate in the study of management, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The North Carolina National Bank Scholarship is awarded annually to a student with an indicated interest in a career related to banking and/or finance. For information and application forms, contact the Financial Aid Office or the dean of the Cameron School of Bsuiness Administration.

The Sales and Marketing Executives International Association (Cape Fear Chapter) Scholarship, established for students concentrating in the study of marketing, is awarded annually on the basis of scholastic ability, financial need and recommendations by faculty. For information and application forms, contact the chairman of the Department of Management and Marketing.

The United Carolina Bank Scholarship, established for students with an indicated interest in banking or finance, is awarded annually on the basis of scholastic ability, financial need, and recommendations by the faculty. For information and application forms, contact the chairman of the Department of Economics and Finance.

SCHOOL OF EDUCATION SCHOLARSHIPS

The Paul Douglas Teacher Scholarship Program authorized by the U.S. Congress provides college scholarships to outstanding undergraduates who have chosen to pursue teaching careers at the preschool, elementary, or secondary level. Applicants are evaluated on the basis of academic performance, leadership, extracurricular participation, and promise of service as a teacher. PDTS awards are valued at up to $5,000 annually and may be received for a maximum of four undergraduate academic years, subject to congressional appropriatioins. The amount of the PDTS award may not exceed the recipients' cost minus other financial aid received. This scholarship converts into a loan commitment at a rather high interest rate if the recipient does not fulfill the teaching commitment required by this award. Inquiries should be directed to the School of Education.

The N.C. Teaching Fellows Program is designed to identify talented students interested in teaching, and to assist those students in becoming teachers by the award of scholarship/loans for four years of undergraduate study, repayable through the means of service. Award recipients will receive annual awards of $5,000 for each of their four college years subject to legislative appropriation. Consideration under this program is given to entering freshman. Interested applicants should contact their High School Guidance Office.

The N.C. Prospective Teacher Scholarship/Loan Program provides assistance to prospective North Carolina teachers. The program provides a $2,000 per year loan which will be cancelled if the student teaches in North Carolina public schools after graduation. The program is administered by the Department of Public Instruction. Inquiries regarding the program should be directed to N.C. Prospective Teachers Scholarship Program, State Department of Public Instruction, Raleigh, NC 27611. To be eligible for this program a student must be enrolled for at least 12 hours and be a North Carolina resident.

The Lee V. Landing Scholarship is established for the purpose of recognizing and encouraging academic excellence among students in The University of North Carolina at Wilmington School of Education. Recipients will be selected based on academic achievement and demonstrated financial need.

The James Ozborn Carr Scholarship is awarded to students in the School of Education. Character and leadership potential will be factors in determining recipients. The scholarships are restricted to graduates of Southeastern North Carolina high schools. The scholarships are designed to attract and retain academically strong students.

The Ann Durant Walker Scholarship Award—The Alpha Psi Chapter of Alpha Delta Kappa awards a scholarship to a junior or senior majoring in Special Education. The scholarship is given in memory of Ann Durant Walker who helped develop the Special Education Program in New Hanover County.

The Sue McCall Boone Scholarship for education majors was established to provide a scholarship for a New Hanover County student who demonstrates a financial need at UNCW. The scholarship is named in honor of Miss Sue Boone, New Hanover educator, who contributed over 50 years of service in the community. The scholarship is awarded to one student biennially in the amount of tuition.

The Robert L. Ostrand Memorial Scholarship. Established by his family in memory of Robert L. Ostrand, whose life was characterized by a devotion to education, this scholarship is awarded annually to a senior in the the School of Education whose academic and service accomplishments exemplify the ideals of the profession of education.

SCHOOL OF NURSING SCHOLARSHIPS

The Edith Graham Toms Scholarship is a memorial scholarship awarded to an outstanding nursing student. This scholarship is valued at the in state rate for tuition and fees plus books and supplies. Applicants must be admitted into the School of Nursing.

The Medical Auxiliary Scholarship is awarded to a nursing student, second-or third-year medical technology student, or junior or senior pre-medical student who is a resident of New Hanover, Pender, or Brunswick County and who demonstrates financial need and scholastic ability.

The Hutaff Scholarship Program awards annual scholarships to a student who has been accepted into the UNCW School of Nursing and four scholarships to students in the humanities. Recipients will be selected on demonstrated financial need and academic and leadership potential.

The Forty and Eight Nursing Scholarship is an academic scholarship established by Voiture 245, the Forty and Eight of American Legionnaires, in joint memory of Voyageur Militaire John H. McInnis and Miss Dorothy Dixon, and is open to nursing students who graduated from high school in New Hanover, Pender, or Brunswick County.

The Ministering Circle of Wilmington awards scholarships on the basis of scholastic ability, financial need, and recommendation, to students accepted in the School of Nursing at UNCW.

The Juanita Borneman Memorial Scholarship, awarded to a student from rural North Carolina, approximates the cost of tuition.

The Billie Burney Memorial Scholarship, started by family and friends of the late Billie Burney, is awarded annually as a tuition scholarship to a student in the field of nursing.

The Louise Ogden Wright Nursing Scholarship is a $500 scholarship given annually by Mrs. Andrew Harriss in memory of her mother. The recipient is selected on the basis of financial need, academic record, and professed intention to pursue nursing as a career.

The Theresa Bentsen Warrick Memorial Nursing Scholarship is awarded to a nursing student demonstrating financial need and proved academic and clinical achievements. Applicants must be graduates from N. C. high schools and present an overall grade point average of at least 2.5.

EMPLOYMENT

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least 12 hours and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

The Institutional Work Program, also known as the Work Assistant Program, makes funds available for campus jobs for students. These funds are allocated to departments with the selection of student work assistants controlled by those departments. Students receiving any type of financial aid must receive clearance through the Financial Aid Office before accepting work positions under this program. Students interested in the program should direct inquiries to the department in which they prefer to work.

Off-Campus Employment is coordinated by the Career Planning and Placement Center. The office publicizes specific job openings, makes individual referrals, announces recruiting visits, and keeps on file company literature, information about public and private schools, and state and federal government opportunities. Students interested in using the services of this office should register with the Career Planning and Placement Center to establish a credentials file.

LOANS

Supplemental Loans for Students

Supplemental loans provide funds for students to cover their college expenses in addition to those borrowed under the Guaranteed Loan program. These loans are available to independent undergraduate and graduate students who meet federal eligibility requirements, and attend school at least half-time. In determining eligibility, the credit worthiness of the borrower is of primary importance. Students may borrow up to $4,000 per year for a cumulative total of $20,000. However, no student may borrow more than his cost of education minus other aid received. Repayment begins immediately with the first installment due 60 days after receipt of your money. A variable interest rate will be calculated annually based on a federal formula but cannot exceed 12 percent.

Parent Loans for Undergraduate Students

Parent loans may be secured to assist in covering educational costs. Parents may borrow p to $4,000 per year for a combined total of $20,000. However, a parent may not borrow ny amount that would make the total amount of financial assistance that both the student nd parent receive greater than the cost of attendance at UNC-Wilmington. In determining ligibility, the credit worthiness of the borrower is of primary importance. A variable interest ate will be calculated annually based on a federal formula. The new rate will begin each ear but cannot exceed 12 percent.

Guaranteed Student Loans provide students with long term, low interest loans. Under his program a student may borrow up to $2,625 for each of the first two years in school nd $4,000 for each of three additional years. All borrowers are required to complete the egular financial aid process and establish their eligibility on the basis of financial need. Repayment of these loans begins six months after a student ceases to be enrolled at least alf time and borrowers are permitted up to 10 years for repayment. The interest on the oan begins at the time of repayment and is calculated at eight percent but rises to ten ercent during the fifth year of repayment.

A combined application/promissory note form must be completed in addition to regular nancial aid forms. Applicants for a North Carolina Guaranteed Student Loan may obtain orms from the Student Financial Aid Office. Out of state students wishing to apply should ontact their bank or the Guaranteed Agency in their state. Students unable to obtain urther information should contact the Financial Aid Office.

Perkins Loans provide needy students with long-term, low-interest loans for eductional xpenses. Under this program students may borrow up to $4,500 for the first two years f study and a total of $9,000 for undergraduate study. Repayment begins nine months fter graduation or withdrawal from school, and the borrower may take up to ten years to epay the loan. The interest rate is five percent and does not begin accruing until six nonths after graduation or withdrawal from school. All or part of the loan can be cancelled y teaching or military service. Applicants must complete the regular financial aid process. o be eligible for a Perkins Loan, a student must be enrolled for at least six hours and nust be a citizen or permanent resident of the United States. Full time student applicants re given priority when funds are limited.

The North Carolina Prospective Teachers Scholarship-Loan Program provides assistance to prospective North Carolina teachers. The program provides a $2000-per-year oan which will be cancelled if the student teaches in North Carolina public schools after raduation. The program is administered by the Department of Public Instruction. Inquiries egarding the program should be directed to N.C. Prospective Teachers Scholarship Proram, State Department of Public Instruction, Raleigh, N.C. 27611. To be eligible for this rogram a student must be enrolled for at least 12 hours and be a North Carolina resident.

The North Carolina Student Loan Program for Health, Science and Mathematics rovides financial assistance to North Carolina residents who demonstrate need as determined by the Board for Need-Based Medical Student Loans. Loans are available for tudy in the medical fields, mathematics and science programs that lead to a degree. dditional information can be obtained by writing to

The Student Loan Program
116 West Jones Street, Room 279
Administration Building, Suite 279
Raleigh, North Carolina 27611

ACADEMIC CONSIDERATIONS

Time Limitation Policy for Determining Eligibility for Financial Aid

A student is allowed up to two additional years beyond the traditional four-year track to omplete the undergraduate degree. Any semester in which he or she registers and does ot withdraw within the formal drop-add period will be counted, regardless of student's nancial status.

Additionally, a student is determined to be no longer eligible for Federal Pell Grant Program once the required hours for graduation have been met. This is true regardless of whether or not the student applies for graduation.

Satisfactory Progress

To be eligible to receive or to remain eligible to receive financial aid funds, undergraduates must maintain satisfactory progress" in their course of study. A determination of satisfactory progress incorporates two standards applied at the end of the regular academic year.

Standard one requires that full-time students must demonstrate successful completion of 20 hours for the academic year (approximately one-sixth of total hours required for graduation); less than full-time students must complete 10 hours (approximately one-twelfth of total hours required for graduation). In the case of a student who changes his or her enrollment status from fall to spring semester, the hours which must be completed will be averaged. **Standard two** involves a qualitative measurement, as shown in the following chart establishing grade standards for hours attempted.

DEGREE STUDENTS		UNCLASSIFIED STUDENTS	
Hours Attempted	**GPA**	**Hours Attempted**	**GPA**
6 - 26	1.2	1 - 6	1.2
27 - 58	1.5	7 - 12	1.5
59 - 88	1.8	13 - 18	1.8
89 or more	2.0	19 - 27	2.0

NOTE: Students enrolled under the three-year rule will be required to meet a minimum 2.0 GPA each term and meet the quantitative measurement of standard one.

The standards of progress outlined for financial aid recipients are not applicable for purposes of continued enrollment, since such determinations will be made by the University in accordance with institutional policy.

A preliminary review will be made at mid-year (following fall semester) to identify those students not meeting the required academic standards. Full time students not successfully completing at least 10 hours, and less-than-full-time students not completing at least 5 hours will be determined deficient. Students not meeting the academic requirements outlined on the retention chart will be issued a warning. Financial aid recipients who fail to meet both standards at the end of the spring semester will lose their continuing eligibility as aid candidates for subsequent periods of enrollment.

Eligibility lost due to shortage of hours can be regained by successfully completing at least 10 hours plus the number short (for full time students) or at least 5 hours plus the number short (for less than full time students) during the regular term. Eligibility lost due to failure to meet academic requirements can be regained by bringing the G.P.A. up to the standards outlined on the retention chart.

Students terminated from aid because of failure to meet satisfactory progress standards may appeal when mitigating circumstances exist. A student who through appropriate administrative review of mitigating circumstances is authorized to continue with his or her studies on a conditional basis is considered to meet the requirements of satisfactory progress.

Repeating of Courses

Repeating courses on which credit has already been received may not be counted in determining enrollment status for financial aid awards. For example, a student taking 12 credit hours, three of which were repeated courses with a previous grade of D" or better would be considered taking nine hours for financial aid purposes.

Transfer Students

Each newly-enrolling student, whether freshman or transfer, is initially assumed to be making satisfactory progress. Additionally, the number of hours accepted as transfer hours will be used to place the student within the time frame allowed to complete the undergraduate degree.

Veterans Services

Veterans Services are administered under the umbrella of Student Financial Aid at UNCW. Veterans services are intended to meet the needs of students receiving benefits under the old G.I. Bill, Dependents, the Vocational Rehabilitation Program, and the New G.I. Bill which replaces the Chapter 34 veterans and Chapter 106's which are the reservests from all branches of the service. Services provided include peer and professional counseling, remedial and tutorial services, and certification for qualifying veterans and their dependents. The primary concern of Veterans Services is to assist students, monitor their course work, and insure that individuals utilizing veterans benefits keep in line with their prescribed curriculum and successfully complete their desired educational objective.

All veterans and dependents receiving V.A. Educational Benefits are required to come to the Financial Aid Office each semester and complete a class schedule. Any change in the veteran's course of study should be cleared with the veteran's counselor in the Financial Aid Office to insure continuation of benefits. Transfer students are reminded that the office must have copies of all transcripts before certification can be made to the Veterans Administration for payment.

In determining eligibility for V.A. educational funds, the chart on page 40 will apply to all veterans and dependents using G.I. Benefits for their training at this University. Any full time student who fails to pass at least three hours during any semester is subject to academic dismissal for one semester, regardless of his or her quality point standing.

STUDENT AFFAIRS

STUDENT AFFAIRS

The basic mission of the Division of Student Affairs is to encourage student use of personal, institutional, community, and other resources toward the goals of indiviidual development, self-fulfillment, and a responsible citizenship. Its programs and services are directed toward assisting students in their educational and personal development.

OFFICE OF THE DEAN OF STUDENTS

The Office of the Dean of Students serves as the primary focal point for addressing student needs, issues and concerns, and serves as a resource and referral office for all faculty, staff and students. Acting in an advocacy role, the Dean and Assistant Dean of Students represent the student perspective to the University community. This office works with all segments of the University to help students develop through opportunities, advice and assistance. Within the Student Affairs Division, the Office of the Dean of Students provides consultation, new program development and assistance to the Vice Chancellor with special projects. Specifically, the office assists in the coordination of orientation for freshmen and transfer students, advises international, non- traditional students and commuter students, publishes the *Student Handbook and Code of Student Life*, and coordinates the student judicial system and the official withdrawal process from the University for undergraduate students. Additionally, the Office of the Dean of Students coordinates programs and policy on rape prevention and assistance, substance abuse education and prevention, and implements developmental programs to meet assessed and perceived student needs. The Office of the Dean of Students also provides supervision for the Residence Life Program and ALTERNATIVES: the Substance Abuse Education and Prevention Center.

UNIVERSITY UNION

The University Union exists to provide support and give direction to out-of-classroom learning. Based on the philosophy that the process of learning is not confined to the classroom, but instead is a constant and ongoing process, the mission of the Union is to facilitate the educational process by providing a laboratory experience for student growth, and an arena for the development of cultural, social, and recreational awareness. This is accomplished through the administration of the Union facility, its programs and services, by providing resources to student organizations, and serving as the campus's central point of reference in regard to student activities and organizations.

STUDENT DEVELOPMENT SERVICES

Student Development Services, which include the Student Development Center and the Career Planning and Placement Center, provide support and assistance for students' personal, career, social and learning skill development. The services help students build satisfying and successful college experiences and prepare for the transition from college to work or to graduate study.

Student Development Center

The Student Development Center provides confidential individual and group counseling for personal, social, career or educational concerns. Decision-making resources for careers and college majors include a computer guidance system, aptitude and interest testing, and an information library. Special assistance is offered with learning strategies, study, reading and exam-taking skills. Workshops are regularly scheduled on these topics as well as on personal growth, communication skills and stress management.

The Center acts as a clearinghouse for disabled students' concerns and assists with tutoring, equipment and advocacy needs. The office also administers national testing programs such as the SAT, GRE, GMAT, NTE and MAT.

Consulting and referral services are provided by the Center's staff for university faculty, staff and student groups.

Career Planning and Placement Center

The Career Planning and Placement Center provides career planning and placement services to students and alumni of UNCW. Assistance in developing career plans is available through individual advising, workshops and seminars. The office also provides information and counseling on careers, specific job requirements, employers, and graduate school programs. Students are encouraged to use these services early in their college career.

The office publicizes specific job openings (part-time, summer and full-time); makes individual referrals; schedules recruiting visits; keeps company literature; and provides information about public and private schools, and state and federal government opportunities.

Seniors should register with the Career Planning and Placement Center early in their final year to establish a credentials file and to avail themselves of all placement services including resume writing, interviewing skills and planning a job search.

RESIDENCE LIFE PROGRAM

The Office of Residence Life, located in the Residence Life Activity Center, is responsible for the development of social, cultural and educational programs to enhance student life on campus. The purpose of the Residence Life program is to create an environment conducive to academic and social growth within the halls. The office is responsible for the supervison of all students who reside in the residence halls and the apartment buildings.

The University has residence hall facilities for approximately 578 men and 578 women in five modern, conveniently located residence halls. In addition, 400 spaces are available in 13 apartment buildings. All rooms are air-conditioned and furnished, and laundry facilities are available. Residence hall students are required to take their meals in the University cafeteria under a five-day or seven-day plan. Students living in the apartments are required to take a limited meal plan.

FOOD SERVICE

The University operates a modern, air-conditioned cafeteria building. Short-order food service is available in the University Hawk's Nest located in the University Union. Service is on a cash basis for non-boarding students.

STUDENT HEALTH AND WELLNESS CENTER

The Student Health and Wellness Center (SHWC) located in the Student Support Center is open 8:30 a.m. to 5:00 p.m., Monday through Friday. After 5 p.m. during the week and all weekend, a Wilmington Health Associates physician is on call for urgent or emergency medical care.

The Student Health and Wellness Center (SHWC) provides diagnosis and treatment of general and accute medical problems. The health fee is part of the student fee and entitles students taking 6 or more credit hours* (living on or off campus) to health care services. The SHWC is staffed by two physician assistants, one family nurse practitioner, two nurses, a medical assistant, and the coordinator of health promotion.

In addition to the treatment of general medical problems, the scope of services include: laboratory testing to diagnose a variety of medical problems, allergy injections, gynecologic examinations and counseling, weight control and nutrition counseling, smoking cessation, crisis intervention, and referral as indicated. The Office of Health Promotion provides the wellness resource center (films, books, and pamphlets) as well as opportunities for self-health care, and programming in wellness.

Each newly admitted UNCW student is required to have the following forms on file in the SHWC prior to enrollment: 1.) a completed and up to date Report of Medical History and Physical Examination and 2.) a completed and up to date Immunization Record required by the N.C. Immunization Law (General Statutes 130A-152).

*Students taking less than six hours will be entitled to health care services upon payment of the health fee and will be required to have the above forms on record.

STUDENT HEALTH INSURANCE

The Student Health Fee covers most medical care given at the Student Health and Wellness Center on a prepaid basis. The health fee will not cover the costs if a student requires hospitalization or specialty care. It is strongly recommended that students who are not covered for major medical expenses (serious injuries due to accidents or hospitalization) under their family health insurance contact the SHWC or the Office of the Dean of Students for information and forms regarding the Student Group Health Insurance Plan available at a nominal cost through the University.

RELEASE OF "DIRECTORY INFORMATION"

The University of North Carolina at Wilmington has routinely made public certain information about its students. Typically, UNCW releases the names of students who are selected by the various honorary societies, receive scholarships, make the Dean's List, hold offices, or are members of athletic teams. The annual commencement program publishes the names of persons who have received degrees from UNCW during the year.

The Family Educational Rights and Privacy Act defines the term "directory information" to include the following information: the student's name, address, telephone listing, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student. The University will make public information about each student limited to these categories in ways such as those described above. Of course, information from all these categories is not made public in every listing.

Students who do not wish to have any or all of such "directory information" made public without their prior consent must notify the Office of the Registrar of this fact in a signed and dated statement specifying items not to be published. This notice must be received by the Office of the Registrar by the end of the registration period for the semester or session of first enrollment or, after an absence, of re-enrollment and by the end of each fall registration thereafter.

STUDENT CONDUCT

The filing of an application of admission shall be construed as both an evidence and a pledge that the applicant accepts the standards and regulations of The University of North Carolina at Wilmington and agrees to abide by them. Each student, by the act of registering, is obligated to obey all rules and regulations of the University as stated in the *Student Handbook and Code of Student Life,* the University catalogue and other University publications. The University reserves the right to ask for the withdrawal of any student who refuses to adhere to the standards of the institution.

STATEMENT OF UNIVERSITY POLICIES, PROCEDURES, AND DISCIPLINARY ACTIONS IN CASES OF DISRUPTION OF EDUCATIONAL PROCESS

A policy statement was adopted by the Board of Trustees of the former consolidated University of North Carolina on October 26, 1970. It is set forth in Chapter V of the Code Provisions Governing the University of North Carolina, Bylaws of the Board of Trustees, and Duties of the University Officers. This policy continues in effect under the 1971 restructuring of The University of North Carolina, and is set forth in full in the *Student Handbook and Code of Student Life.*

Policy on Illegal Drugs

Students, faculty members, administrators, and other employees of The University of North Carolina at Wilmington are responsible, as citizens, for knowing about and complying with the provisions of North Carolina law that make it a crime to possess, sell, deliver, or manufacture those drugs designated collectively as "controlled substances" in Article 5 of Chapter 90 of the North Carolina General Statutes. A copy of this law is available in the following offices: Personnel, Dean of Students, and Academic Affairs. Any member of the university community who violates that law is subject both to prosecution and punishment by the civil authorities and to disciplinary proceedings by UNCW. In accordance with policy adopted by the Board of Governors of The University of North Carolina and the Board of Trustees of UNCW, disciplinary proceedings against a student, faculty member, administrator, or other employee will be initiated when the alleged conduct is deemed to affect the interests of UNCW.

Penalties will be imposed for violation of the policies of UNCW only in accordance with procedural safeguards applicable to disciplinary actions against students, faculty members, administrators, and other employees. The penalties that may be imposed range from written warnings with probationary status to expulsions from enrollment and discharges from employment. For more information, please refer to the **Code of Student Life, The Code** of the University of North Carolina (Section 603) and Personnel Procedure No. 610.

Every student, faculty member, administrator, and other employee of UNCW is responsible for being familiar with and complying with the terms of the policy on illegal drugs adopted by the Board of Governors of The University of North Carolina and the Board of Trustess of UNCW. Copies of the full text of that policy appear in the **Code of Student Life,** Faculty Handbook, and it is available in the Personnel Office.

STUDENT LIFE

STUDENT LIFE

UNIVERSITY UNION

Student life is enriched at the University of North Carolina at Wilmington by a broad spectrum of activities, most of which occur in or around the University Union. The Union is a 53,000 square-foot facility which houses student organization offices, conference rooms, recreation and games facilities, lounges, study areas, snack bar, rental lockers, the University Information Center, U.S. Post Office, Wachovia Banking Machine, and an assortment of student services. With the guidance of the Office of Student Activities, students are provided opportunities to plan, execute, attend, and evaluate a wide variety of programs and activities. With the belief that education is not bound to the classroom, it is the University Union's goal to educate, entertain and enlighten the University community, while providing a laboratory for student growth and an arena for development of cultural, social and recreational awareness.

STUDENT ACTIVITIES OFFICE

The Office of Student Activities, located in the Union, works to expand and complement the student's education by providing support to the approximately seventy student organizations that are officially registered on campus. The Student Activities Office assists organizations with the planning, execution and evaluation of events and activities that are not only entertaining, but also educational. The office provides expertise in the areas of leadership development programs, activity programming, contract negotiation, university policy and procedure explanations, budget preparation, publicity and promotion and organization development.

MINORITY AFFAIRS OFFICE

The Minority Affairs Office is responsible for the implementation of programs and activities designed to enhance the overall experiences of minority students at UNCW. Through direct sponsorship of or participation in Minority Visitation Day, orientation, workshops, recruitment, a minority mentor program, the tutorial assistance program, and other activities, the office provides an added dimension to the traditional services offered to UNCW students.

All students are invited to visit the office, in room 211 of the University Union, or to call 919-395-3832, to discuss ways in which the office may be of service.

UNIVERSITY INFORMATION CENTER

The Information Center, located on the first floor of the University Union, provides a variety of information on campus, student and community activities. The Center also sells discount movie tickets, concert tickets, and is the repository for campus lost and found items.

POSTAL SERVICES

A U.S. Post Office, which provides all postal services, is in the University Union. UNCW provides each student with a post office box where all mail (except grades) is delivered. This box is the official means in which students receive University mail.

STUDENT GOVERNMENT ASSOCIATION

The core of student life at the University is the Student Government Association. Officers and at-large senators are elected by the student body, and other senators by classes within the student body.

The association is a democratic organization, permitting expression of student opinion, working for the best interests of the University and upholding a high standard of morals

and conduct. It is responsible for the disbursement of half of the student activity fee. This money supports the Student Government Association in its objectives and campus activities. The association is a member of the North Carolina Association of Student Governments.

UNIVERSITY PROGRAM BOARD

The University Program Board coordinates the various student-produced events on campus. It provides a diversified schedule of programs, activities, and events that promote and provide opportunities for educational, social, recreational, and cultural growth for students and the campus community. The UPB is comprised of the following committees: Fine Arts/Lecture, Film-Video, Concert, Coffeehouse, Minority Arts, and Special Events. The board is a member of the National Association for Campus Activities.

STUDENT ORGANIZATIONS

A variety of social, academic, and service organizations enhance student life at UNCW. National sororities and fraternities are established on the campus to recognize students for their leadership and service activities. Several departments in the University have locally and nationally organized groups to stimulate interest in specific areas and to develop professional attitudes. Students are encouraged to contact the Office of Student Activities for specific information relative to a student organization.

PUBLICATIONS

The Seahawk, the student newspaper, is published weekly. Its staff is composed entirely of students.

The Fledgling, the student-produced yearbook, contains the usual features of a college annual.

The Atlantis, a literary magazine, is published by students each semester.

The Channel Marker is a calendar published monthly by the Student Activities Office to provide information regarding the dates and times of campus events and activities.

The Student Handbook and Code of Student Life is the primary source of information regarding University regulations and campus life.

ATHLETICS

The University holds membership in the National Collegiate Athletic Association and the Colonial Athletic Association.

Varsity intercollegiate teams are fielded for men in basketball, cross country, baseball, golf, soccer, tennis, swimming, and water polo. Varsity intercollegiate teams for women are fielded in basketball, softball, tennis, volleyball, swimming, golf, and cross country.

In addition, an intramural sports program is provided for the student body. The program is based on both a competitive and recreational basis, and participation is voluntary.

PERFORMING ENSEMBLES IN MUSIC

Membership is open to any student who has had instrumental or vocal experience, with the approval of the director of the particular ensemble. Any participant may earn credit. Participation by nonmusic majors may be supplemented by private lessons, also for credit. Participation in either a vocal or an instrumental organization is required of all music majors.

Instrumental Ensembles

The UNCW Wind Ensemble is organized each semester to provide instrumental music experience for those students who desire it. The Wind Ensemble presents at least two concerts per year.

The UNCW Jazz Ensembles perform several concerts on and off campus each semester and perform an annual guest artist spring concert. Development of performance in the

jazz idiom is stressed. These groups are open to any student who has had instrumental experience and the approval of the instructor. Auditions for each group are held at the beginning of each semester.

The Wilmington Symphony Orchestra, Inc., rehearses on campus and UNCW students may enroll and receive credit for participating in this group.

Faculty, student and senior recitals are presented free of charge and are open to the public as well as to all students.

The music division also maintains an Electronic Music Studio.

Vocal Ensembles

The University of North Carolina at Wilmington Concert Choir is organized each semester to provide vocal musical experience for those students who desire it. Membership is open to any student in the University, with the approval of the director, and any participant may earn credit. Participation by non-music majors may be supplemented by private lessons, also for credit.

The University Concert Choir and small ensemble, The Chamber Singers, regularly provide music for University functions, appear on radio and television, and act as ambassadors from the University at a wide spectrum of community functions.

The UNCW Concert Choir's yearly activities have included at least two on-campus concerts and an extensive tour during the spring holidays. On occasion the choir has participated in large, joint stage productions of opera and musical comedies with the drama division.

THE UNIVERSITY THEATRE

The University Theatre is a student-oriented theatre dedicated to the continuing development of all theatre practitioners. It strives to produce a total theatrical experience to support the educational, creative, and recreational potentials of a campus-based theatre.

Two major productions are presented each semester, with student productions presented on demand. Participation is not limited to dramatic art students, but is open to all University personnel and community residents.

UNIVERSITY READERS THEATRE

The University Readers Theatre provides students with an opportunity to participate in both the performance and technical production of a readers theatre script. Students attend open auditions and may take part in the reading, publicity, lighting, set design and managing of the show.

One major production is usually presented each semester. During semesters when the readers theatre course is offered, class members of that course will comprise the University Readers Theatre troupe. Interested students may inquire further at the Creative Arts Department.

FORENSICS TEAM

The University Forensics Team participates in a number of tournaments each year in addition to hosting the annual Blockade Runner Invitational Tournament on the UNCW campus. Students gain experience in public speaking, interpretation, research and argumentation. Membership is open to all students.

ART EXHIBITIONS

Monthly exhibitions of paintings, sculpture and the graphic arts are held in the gallery-lobby of Kenan Hall. Student art is often featured. All exhibitions are open to the public without charge.

HONOR SOCIETIES AND AWARDS

THE SOCRATIC SOCIETY

The Socratic Society is an honorary scholastic society formed in 1968 to give special recognition to seniors of outstanding academic accomplishment. It is sponsored by faculty members who belong to the scholastic honorary fraternity Phi Beta Kappa.

Graduating seniors who have completed a minimum of 60 semester hours in the humanities and have attained an overall quality point average of 3.5 may be recommended for election to the society by the faculty of the area in which they are concentrating.

PHI ETA SIGMA NATIONAL HONOR SOCIETY

Phi Eta Sigma is a national college scholastic honor society for freshmen. A member of the Association of College Honor Societies, it was founded at the University of Illinois on March 22, 1923. The University of North Carolina at Wilmington Chapter of Phi Eta Sigma was chartered on March 17, 1979.

The goal of Phi Eta Sigma is to encourage and reward high scholastic attainment among freshmen. At the close of their first academic year freshmen are eligible for membership if they have a cumulative grade-point average of 3.5 or better with no grade lower than "C" on thirty hours or more course work at UNCW.

THE HONOR SOCIETY OF PHI KAPPA PHI

Phi Kappa Phi is an honor society recognizing good character and superior scholarship in all academic disciplines. A member of the Association of College Honor Societies, it was founded at the University of Maine at Orono in 1897. Chapter Number 222 at The University of North Carolina at Wilmington was chartered on May 1, 1980. Seniors and second semester juniors are elected to membership based on class standing and grade point average.

HOGGARD MEDAL FOR ACHIEVEMENT

A medal, presented through the generosity of the late Dr. John T. Hoggard, is awarded annually to the graduating senior who, in the opinion of the faculty, has shown the most improvement during his or her years at the University. The medal is presented each year at commencement.

ALUMNI ASSOCIATION SCHOLASTIC ACHIEVEMENT AWARD

The Alumni Association of The University of North Carolina at Wilmington each year at commencement presents an award to the senior who has attained the highest academic average in the graduating class.

ADRIAN D. HURST AWARD

Established by Adrian D. Hurst, Emeritus Professor of Mathematics, this award recognizes a UNCW junior or senior math major who has achieved the highest overall academic grade point average. The award is presented each spring in the form of a plaque.

BIOLOGICAL SCIENCES ACHIEVEMENT AWARD

This award was established by the faculty of the Department of Biological Sciences to honor annually the graduating senior biology major who has achieved the highest academic standing. The recipient is identified on a permanent plaque in the Marine Science Building.

THE WALTER SCHMID PHYSICS AWARD

This award has been established in honor of the late Walter Schmid, engineer and inventor, to reward a senior bachelor of science physics major for excellence in physics. The award consists of an engraved plaque and a physics encyclopedia.

WHO'S WHO AMONG STUDENTS IN AMERICAN UNIVERSITIES AND COLLEGES

The University of North Carolina at Wilmington participates in this national organization which lists in its annual directory outstanding campus leaders. Selection of the candidates is made by a nominating committee composed of faculty, administration and students.

ACADEMIC REGULATIONS

ACADEMIC REGULATIONS

ORIENTATION

All new students are required to attend an orientation program prior to the beginning of fall and spring semesters. Its purpose is to acquaint students with opportunities and services at the University and to provide information needed to register for classes. Students are notified by mail of the time to report for the activities involved.

All freshmen, including transfer freshmen (less than 24 semester hours) are assigned to the General College for advising purposes. All other students are assigned for advising to an academic department or professional school. Unclassified students may receive advising assistance in the Advising Center.

REGISTRATION

Registration is limited to the time period specified in the University calendar of events and other days as announced by the Registrar's Office. Classes may not be added after the last day of registration. Students may take 12 to 18 hours without restriction. Students who have a cumulative quality point average of 3.5 may be allowed, with special permission of the appropriate dean, to carry a maximum of 21 semester hours.

PREREGISTRATION

Preregistration for students currently enrolled is held each semester. Students who complete preregistration and pay fees by the designated date are registered **except in the event that they are declared academically ineligible at the end of the preceding semester.**

TRANSFER OF CREDIT

Students transferring from a two-year institution may receive up to 62 semester hours of academic credit from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will be included in this total.

Students transferring from a four-year institution may receive up to a maximum of 92 semester hours from all institutions attended. Correspondence courses, advanced placement, CLEP credit and military service credit will also be included in this total.

A maximum of 15 semester hours earned through correspondence may be applied toward graduation. Credit earned in another institution with a grade of "C" or better is accepted by the University if the work transferred is comparable to offerings of The University of North Carolina at Wilmington. All grades earned at another institution are entered on the student's record exactly as earned. However, quality points earned at other institutions are not transferable and are not used in computing grade point averages except in the case of students applying to enter the teacher education program, the nursing program and of seniors graduating with honors and/or distinction.

ADVANCED PLACEMENT

The University of North Carolina at Wilmington participates in the advanced placement programs of the College Entrance Examination Board. A brochure listing the examinations, required minimum scores, course equivalents, and credits awarded is available through the Registrar's Office or the Office of Admissions. A freshman who scores 3 or above on the Advanced Placement test will receive appropriate college credit and advanced placement. Students taking Advanced Placement tests should have the score reports sent to the Registrar's Office for evaluation concerning placement and credit. Individual departments have determined the specific courses for which credit will be given.

Students who are talented and well prepared may also receive credit for a variety of courses by achieving a passing score on one of the College-Level Examination Program

CLEP) tests. Tests are offered and can be registered for biannually at the Student Development Center.

Students who have been exempted with credit from courses at an accredited college or university may be exempted with credit from appropriate courses at The University of North Carolina at Wilmington, as outlined in the test brochure. When the exemption is based on a test result, the student should have a copy of the score report sent to the Office of Admissions. In those cases in which a student has demonstrated his knowledge of a particular field by more advanced course work, exemptions may be granted on an individual basis by the appropriate department chairman.

ACADEMIC HONOR CODE

The University of North Carolina at Wilmington is committed to the proposition that the pursuit of truth requires the presence of honesty among all involved. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the University community are encouraged to report occurrences of dishonesty, honesty is principally the responsibility of each individual.

Academic dishonesty takes many forms, from blatant acts of cheating, stealing, or similar misdeeds to the more subtle forms of plagiarism, all of which are totally out of place in an institution of higher learning. Reporting and adjudication procedures have been developed to enforce the policy of academic integrity, to ensure justice, and to protect individual rights. Complete details may be found in the current *Student Handbook and Code of Student Life* and in the Faculty Handbook.

GRADES AND REPORTS

The University of North Carolina at Wilmington uses the quality point system and semester hour credit for calculating student achievement. Grade symbols used are: A – excellent, B – good, C – average, D – passing, F – failure, I – incomplete, W – withdrew.

Quality points are assigned as follows: 4 for a grade of "A"; 3 for a grade of "B"; 2 for a grade of "C"; 1 for a grade of "D." No quality points are given for a grade of "I," "F," or "W." The quality point ratio is determined by dividing the accumulated number of quality points earned by the accumulated number of semester hours attempted. Hours attempted for which a grade of "I" or "F" has been assigned must be included in this calculation.

At the discretion of the instructor, a student may be given a grade of incomplete when the work in the course has not been completed for reasons beyond the control of the student. All incomplete grades must be removed according to a deadline established by the instructor, not to exceed one calendar year from the end of the semester in which the incomplete was given; otherwise the "I" becomes an "F."

Grade reports are mailed to the student at the end of each semester.

CHANGE OF MAJOR

With one exception, all requests for a change of major must be completed in the General College Advising Center. The only exception is for those students changing from one department in a professional school to another department in the same school. These requests must be completed in the office of the dean of that school.

DEAN'S LIST

To be included in the Dean's List at the close of each semester, students must meet one of the following criteria:

(a) Students carrying 12-14 hours must earn a quality point average of 3.5 or better with no grade less than B.

(b) Students carrying 15 hours or more must earn a quality point average of 3.2 or better with no grade less than B.

Students carrying 11 hours or fewer are not eligible for the Dean's List.

WITHDRAWAL POLICY FOR UNDERGRADUATE STUDENTS

A student is allowed to withdraw from the University or from individual courses through the first week of the semester without having a grade entered on the academic record. Inclusive of the second through the sixth week of the semester, any student who withdraws from the University or from individual courses will receive a grade of W. A grade of W will not affect the student's grade point average. Beginning with the seventh week of the semester, a grade of F will be assigned for each course withdrawal.

To withdraw from an individual class or classes, the student must submit a Schedule Revision Form(s) to the Registrar's Office prior to the last day for withdrawal as indicated in the University Calendar of Events. To withdraw from all classes, the student must process an official Withdrawal Form through the Dean of Students Office. If the student is unable to appear in person to withdraw, written notice must be sent to the Dean of Students Office.

Should extenuating circumstances warrant, the grade of F assigned for course withdrawal may be changed to a W. This determination will be made by the Dean of the School or College in which the student is enrolled. It is the student's responsibility to initiate the appeal. The decision of the Dean is final and must be rendered prior to the end of the semester in which the withdrawal occurred.

AUDITING

The auditing of courses without credit is permitted by special permission of the Registrar and of the instructor involved. Individuals not regularly enrolled as students in the University who wish to audit courses will be classified as special students and will be required to pay regular tuition and fees. University students in regular status will be permitted to audit courses and must pay the same tuition and fees as required for credit courses.

REPEATING OF COURSES

Students who receive a grade of "C" or better in a course may not repeat the course but may audit it without credit.

Students who receive a grade of "D" in a course taken at UNCW may, with the permission of their academic adviser and the appropriate academic dean, repeat the course once at UNCW and receive the grade given for the second attempt. Although no additional credit in hours earned toward graduation will be granted, the original grade will not be used in determining the grade point average of the student. The original grade will remain on the student's permanent academic record. This policy is effective beginning with the Fall semester, 1985.

Students who receive a grade of "F" in a course taken at UNCW may, with the permission of their academic adviser and the appropriate academic dean, repeat the course once at UNCW and receive the hours credit and the grade. The original grade will not be used in determining the grade point average of the student although it will remain a part of the student's permanent academic record. This policy is effective beginning with the Fall Semester, 1985.

Students who receive a grade of "D" or "F" in a course taken at UNCW may, with the permission of their academic adviser and the appropriate academic dean, repeat the course more than once at UNCW. However, the credit hours of the course and the grade received will be included in determining the grade point average of the student each time the course is repeated.

Course repeat approval forms are available in the Registrar's Office. Students must complete this form and have it approved by the academic adviser and the appropriate academic dean before repeating a course.

OFF-CAMPUS COURSES

Students who enroll in off-campus courses (extension, correspondence, or summer school) and wish to apply credit in these courses toward a degree at The University of North Carolina at Wilmington must obtain written approval of the advisor, the department chairman, and the appropriate dean before registering for the course. This permission must be filed in the Admissions Office on forms supplied by that office.

GRADE APPEAL PROCEDURE

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedure outlined below. Such appeal must be made not later than the last day of the next succeeding regular semester.

1. The student shall present the appeal in writing to the chairman of the department within which the protested grade was awarded. By conferring with the student and the instructor, the chairman will seek resolution by mutual agreement.
2. Failing such resolution the department chairman will transmit the written appeal to the appropriate dean, who will convene the Grade Appeals Committee.
3. The Grade Appeals Committee will consist of the convening Dean and five faculty members appointed by the Dean. If the Committee affirms the instructor's decision, the Dean will notify in writing the faculty member, the student, and the department chairman as appropriate. If the Committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

CLASS ATTENDANCE

Students are expected to be present at all regular class meetings and examinations for the courses in which they are registered. All faculty members are responsible for setting policy concerning the role of attendance in determining grades for their classes. It is the responsibility of the students to learn and comply with the policies set for each class in which they are registered.

FINAL EXAMINATION POLICY

University policy requires the scheduling of final examinations. Under this policy, the final examination schedule provides a three-hour period for each examination and allows a maximum of three examinations per day. The length of the final examination, up to a maximum of three hours, is at the discretion of the instructor.

The final examination schedule is published at the beginning of each semester. Courses offered during the day have final examinations during the day (two per day). Night courses have final examinations at night (one per night).

A student who is scheduled to take three final examinations in one calendar day may have one rescheduled by notifying the three instructors and the appropriate deans of this desire at least two weeks before the beginning of the final examination period. It will be the responsibility of the three instructors, working with the student, to reschedule one of the examinations and to so inform the student and the appropriate deans at least one week before the beginning of the final examination period.

Rescheduling of a final examination for an entire class may be done only with the approval of the appropriate dean.

CLASSIFICATION OF STUDENTS

Students are classified as freshmen, sophomores, juniors, and seniors. Semester hours passed are used to determine these classifications. In order to graduate in eight semesters, a student must average 15 to 16 hours per semester.

The required number of hours passed for each classification is as follows:

Less than 27 semester hours credit – Freshman
From 27-58 semester hours credit – Sophomore
From 59-88 semester hours credit – Junior
More than 88 semester hours credit – Senior

Retention, Dismissal and Readmission

The University of North Carolina at Wilmington both encourages and requires scholarship. In order to remain at the University, all students must meet the quality point requirements as outlined below.

RETENTION CHART

Total Hours Attempted	Required Quality Point Average for Eligibility To Continue in the University
6 - 26	1.2
27 - 58	1.5
59 - 88	1.8
89 or more	2.0

Transfer students are placed in the above retention chart based on total hours transferred from all institutions attended. Transfer students' quality point averages are computed only on work attempted through The University of North Carolina at Wilmington.

Students who do not meet the minimum quality point requirement for retention at the conclusion of the spring semester will be declared ineligible. These students will be allowed to make up deficiencies during this University's summer sessions which immediately follow the spring semester in which they were declared ineligible **and will lose their preregistration for the fall semester**. If such deficiencies are not removed in this manner, students will be dismissed from the University for one semester. Such students may reenroll for any subsequent semester if space is available. Applications for reenrollment are available in the Admissions Office and should be filed as early as possible to insure acceptance. If accepted, students attend on a probationary basis and must prove themselves by meeting the required quality point average as outlined in the retention chart. However, reenrolled students who make a 2.0 average or better during the first semester after returning, but who fail to reduce quality point deficiencies to the required level, will be granted one additional semester in which to meet this requirement.

A second academic dismissal is final unless eligibility for continued residence or for readmission is restored by completion of sufficient work during the summer sessions at the University of North Carolina at Wilmington.

Students may, through appropriate administrative review of mitigating circumstances, be authorized to continue with their studies on a conditional basis. Written permission must be obtained from the appropriate dean prior to the beginning of the semester in which such students wish to enroll.

Full-time students who fail to pass at least three hours during any semester are subject to academic dismissal for one semester, regardless of quality point standing. Freshmen, other than transfer students, must earn at least three semester hours of credit the first semester. Students who fail to meet this requirement will be subject to academic dismissal. These students must also meet the minimum quality point ratio on hours attempted listed in the retention table if they wish to continue in the University.

HONORS PROGRAM

A student who has a quality point average 3.2 or better (including all transferred work) over the first two and one-half years of college work (74 semester hours), who has completed at least 30 semester hours work with a 3.2 or better quality point average at The University of North Carolina at Wilmington, and who is recommended by the chairman of the area of concentration is eligible for admission to the Honors Program. This program involves independent study in the area of concentration, a paper reporting the results of the study, and an oral examination. Honors work is not intended to replace any specifically required courses.

A student who enters the Honors Program will be required to complete six semester hours of honors work in the field of concentration during the last three semesters, with a maximum of three semester hours credit in any one semester. The Honors Program may be entered either at the beginning of the second semester of the junior year (on completion of 74 semester hours) or at the beginning of the first semester of the senior year.

In order to graduate with honors, a student must successfully complete the program and have a 3.2 quality point average over all college work at the time of graduation. A student who does not retain an overall average of 3.2, however, may still receive credit for the honors project.

REQUIREMENTS FOR GRADUATION

Students may qualify for the bachelor's degree by completing successfully (1) the basic studies requirements, (2) an approved course of study in an area of concentration, (3) a total of 124 semester hours of credit, and (4) a minimum quality point average of 2.0. The final 30 semester hours of course credit, including the final 15 semester hours in the concentration, must be completed at The University of North Carolina at Wilmington.

Graduation will be certified at the end of the term in which all academic requirements are complete. Upon completion of all requirements, the student will receive either the Bachelor of Arts or the Bachelor of Science Degree.

Application for graduation must be filed in the Office of the Registrar on or before the dates specified in the University calendar on page 5. The Graduation Fee is listed on page 26.

In advising and registering students, the deans, the registrar and faculty advisors try to make certain that every student who intends to graduate from the University registers for those courses which are required for a degree. **The student, however, must assume the final responsibility for meeting the graduation requirements set forth in the University catalogue.**

A student who enrolls at The University of North Carolina at Wilmington during any academic year and who earns credit for work done during the year may always graduate under the provisions of the entering catalogue or under any subsequent catalogue, provided all graduation requirements are completed within six years of the expiration date of the catalogue chosen.

REQUIREMENTS FOR A DOUBLE CONCENTRATION

A student may elect to concentrate in two separate disciplines with the permission of the chairman of each of the departments and on the condition that the student meets all requirements for each concentration. The student who completes requirements for more than one concentration will receive only one degree, but at the time of the initial graduation the record will indicate both concentrations when the completed requirements lead to the same baccalaureate degree.

A student who returns to the University after the initial graduation to complete the requirements for a second concentration may have the additional area of concentration added to the official record upon written notification from the department chairman that all departmental requirements have been satisfactorily met.

REQUIREMENTS FOR A SECOND BACCALAUREATE DEGREE

A student with a bachelor's degree from UNCW may receive a second baccalaureate degree if it is a different degree and a different concentration by fulfilling the following requirements:

(1) The student must meet all the requirements for the second degree and concentration.
(2) The student must complete a minimum of 30 hours in residence beyond the requirements for the first degree.

DEGREES WITH DISTINCTION

Three degrees with distinction are granted to graduating students based on all work attempted in meeting requirements for the degree as follows:

Cum Laude for an overall average of 3.50
Magna Cum Laude for an overall average of 3.70
Summa Cum Laude for an overall average of 3.90

Degrees with distinction are granted to transfer students under the following conditions:

1. The student must have the required overall average on all work attempted (including any transfer credit).
2. The student must have the required average on work attempted at The University of North Carolina at Wilmington.

Students who complete the Honors Program satisfactorily will be graduated "With Honors in" the discipline in which the special work is undertaken.

TRANSCRIPTS

All students are entitled to one official transcript of their work without charge. Additional copies of the transcript at a cost of $1.00 each may be obtained upon written request to the Office of the Registrar.

INDEBTEDNESS

All indebtedness to the University must be satisfactorily settled before a diploma or transcript of record will be issued.

CHANGE OF NAME AND ADDRESS

It is the obligation of every student to notify the Office of the Registrar of any change in name or permanent mailing address.

DEGREE REQUIREMENTS AND COURSE DESCRIPTIONS

ACADEMIC PROGRAMS

The University of North Carolina at Wilmington offers four-year programs leading to the Bachelor of Arts and the Bachelor of Science degrees and graduate programs leading to the Master of Business Administration, Master of Education, and Master of Science degrees. Professional undergraduate programs include those offered in the Cameron School of Business Administration, the School of Education, the School of Nursing and the Medical Technology program in the College of Arts and Sciences. Preprofessional programs are offered in agriculture and forestry, dentistry, engineering, law, medicine, optometry, pharmacy, physical therapy, and veterinary medicine. The University has special programs in marine sciences and environmental studies.

DEGREES OFFERED

Areas of Concentration for the Bachelor of Arts Degree

Anthropology
Biology
Chemistry
Creative Arts
  Art
  Drama
Economics
Elementary Education
English
Environmental Studies
French
Geography
Geology
History
Mathematics
Middle Grades Education
Music
Parks and Recreation Management
Philosophy and Religion
Physical Education
Physics
Political Science
Psychology
Social Science
Sociology
Spanish
Special Education
Speech Communication

Areas of Concentration for the Bachelor of Science Degree

Accountancy
Biology
Business Management
Chemistry
Computer Science
Economics
Finance
Geology
Marine Biology
Marketing
Mathematics
Medical Technology
Nursing
Physics

Area of Concentration for the Master of Business Administration Degree

Business Management and Administration

Areas of Concentration for the Master of Education Degree

Elementary Education
Educational Administration and Supervision
Reading Education
Special Education

Areas of Concentration for the Master of Science Degree

Geology
Marine Biology

THE GENERAL COLLEGE

The General College consists of the first year of study during which students are expected to work toward fulfilling the University's basic studies requirements as outlined in this University catalogue. All freshmen are enrolled in the General College. Upon entering the University, many students do not know which major they will pursue. Courses prerequisite to a major, combined with elective courses, provide the opportunity to explore several different areas of academic interest. Students who have already chosen their major or professional program will still want to make satisfactory progress toward completing basic studies requirements combined with other required courses in their chosen field before transferring from the General College toward the end of the freshman year, at which time all freshmen must declare a major. Upon declaration of a major, all students are then assigned an advisor in the designated department or professional school. Finally, students with admissions deficiencies are expected to begin remedying these deficiencies while still enrolled in the General College.

The General College Advising Program

Each student in the General College receives the personal assistance of a faculty advisor in selecting courses, maintaining required scholastic standards, and planning a complete General College educational program. Every effort is made to place students in classes appropriate to their level of preparation and achievement.

The General College Advising Program has 60 faculty advisors and is responsible for advising all students in the General College. Advising assistance is available in the General College Advising Center, from 8 a.m. - 5 p.m., Monday through Friday. Advisors may be seen either on an appointment or a drop-in basis. Advisees are expected to see their advisors before preregistration/registration and before dropping or adding courses or before withdrawing from the University.

Admission to the College of Arts & Sciences

Students wishing to declare a major within the College of Arts & Sciences will request to have their records transferred to the appropriate department toward the end of the second semester of the freshman year.

Admission to the Professional Schools

Students wishing to declare a major within a professional school will request to have their records transferred to the appropriate school toward the end of the second semester of the freshman year. These students will then be assigned to that school for pre-professional advising.

Students seeking admission to the Cameron School of Business Administration or the School of Education normally submit their applications to the appropriate school immediately upon completion of the third semester of study, provided that all minimal requirements as stated in the University catalogue have been met at the time of application.

Students seeking admission to the School of Nursing must submit applications to the Office of the Dean, School of Nursing. Application forms and deadline dates are available through the School of Nursing.

I. Requirements for Admission to the Cameron School of Business Administration

1. The following courses must have been successfully completed:

ENG 101-102	Composition
MAT 111	Precalculus I
ACG 201*	Financial Accounting
ECN 221	Principles of Economics (Micro)

2. During the semester of application each applicant must be enrolled in or have successfully completed:

ACG 203 or 204*	Managerial Accounting or Intermediate Accounting I
ECN 222	Principles of Economics (Macro)
PDS 217*	Statistical Analysis
MAT 151	Basic Calculus with Applications I

*ACG 201 and 203 or 204 not required and STT 205 or 215 may be substituted for PDS 217 in the B.A. Economics degree program.

3. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better (4.0 scale).

II. Requirements for Admission to the School of Education and the Teacher Education Program

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

2. Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.

3. Completion of four semesters or two academic years of full time college study or completion of required general studies program with a minimuim overall grade point average of 2.5 on a 4.0 scale.

4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

III. Requirements for Admission to the School of Nursing—Bachelor of Science Degree Program

1. Minimum overall cumulative GPA of 2.5 or better (on a 4.0 scale) is required for all course work completed at the college or university level.

2. Minimum grade of "C" in each of the following courses or their equivalent:

BIO 240-241	Human Anatomy & Physiology (2 semesters)
CHM 115	Fundamentals of General Chemistry
CHM 215	Organic/Biological Chemistry
BIO 246	Microbiology of Human Diseases
MAT 111	Precalculus I

3. Completion of all courses prerequisite to the nursing major. (Any foreign language deficiency must have been removed prior to admission to the program).

4. Evidence of satisfactory high school completion or equivalent.

5. Satisfactory physical and emotional health.

Admission Requirements—RN Access Program

In addition to the above requirements, applicants to the RN Access Program need:

1. One year nursing practice.
2. A current license to practice as a registered nurse in North Carolina.

BASIC STUDIES REQUIREMENTS

Basic studies at The University of North Carolina at Wilmington is defined as the acquisition of essential skills and an introduction to the broad spectrum of studies which are basic to our intellectual and cultural heritage. The program is designed to develop skills in comprehension, composition, reasoning and analysis; to introduce students to the structure, methodology and knowledge of academic disciplines; and to address important human concerns from disciplinary or interdisciplinary perspectives.

To qualify for the bachelor's degree from The University of North Carolina at Wilmington, all students must meet the basic studies requirements as outlined below, and in fulfilling these requirements must acquire a total of forty-five (45) semester hours less exemptions.

A. English Composition (6 hours)
Required: English 101 and 102 (3-3)

B. Physical Education (2 hours)
Required: Physical Education 101 (2)

C. Humanities (9-15 hours) Required:
A minimum of nine and a maximum of 15 hours elected from at least two of the following areas:
Communication 105
English 110, 207, 208, 210, 211, 212, 219, 230, 250
History 101, 102, 201, 202, 237, 261, 273, 275
Modern Languages
French 101, 102, 201, 202, 305, 311, 312, 321, 322
German 101, 102, 201, 202, 305, 321, 322, 350
Spanish 101, 102, 201, 202, 209, 210, 211, 212, 305, 311, 312, 321, 322
Portuguese 101, 102, 201, 202
Philosophy and Religion 101, 103, 110, 115, 201, 202, 205, 215, 230, 232, 235, 236, 242

D. Creative Arts (3-6 hours)
Required: A minimum of three and a maximum of six hours elected from the following areas:
Art 101, 102, 111, 112, 201, 202, 204, 221, 241, 242
Communication 116
Drama 221, 225
Music 085*, 086*, 087*, 105, 115, 116, 117, 118
*(Basic studies credit from Music 085, 086, and 087 may not exceed a total of three semester hours.)

E. Natural and Mathematical Sciences (10-15 hours)
Required: A minimum of 10 and a maximum of 15 hours from the two areas of natural sciences and mathematical sciences as described below:
1. Natural Sciences (4-12 hours)
Required: A minimum of four and a maximum of 12 hours, including at least one laboratory science course (starred below), elected from the following:
Anthropology 210
Biology 105*, 205*, 206*, 207, 235, 236, 237, 238, 240*, 241*
Chemistry 101*, 102*, 103*, 105, 106*, 115*, 215*
Geography 130*, 230
Geology 101*, 102*, 120, 150
Physical Education 216*, 217
Physics 101*, 102*, 105*, 201*, 202*, 260

2. Mathematical Sciences (3-8 hours)
   Required: One of the following courses:
   Mathematics 101, 111, 112, 115, 141, 151, 161
   Additional credit may be earned by electing from the following:
   Computer Science 111
   Mathematics 102, 112, 142, 151, 152, 161, 162, 275
   Philosophy and Religion 218
   Statistics 205, 210, 215

F. Social and Behavioral Sciences (3-9 hours)
   Required: A minimum of three and a maximum of nine hours elected from the following:
   Anthropology 105, 205 (Sociology 205), 206, 207
   Criminal Justice 201
   Economics 125, 221, 222
   Geography 110, 140
   Political Science 101, 102, 111, 206, 207
   Psychology 105, 145, 220, 323
   Social Work 235, 245
   Sociology 105, 110, 205 (Anthropology 205) 215, 225

Waiver of Requirements

English: Students who have not qualified for advanced placement but who because of special circumstances may have writing competencies equal or superior to those required in English 101 or 102 may, at the discretion of the chairman of the Department of English, take a waiver examination. An acceptable score will waive either or both requirements. This waiver does not grant academic credit.

Mathematics: Students who have not qualified for advanced placement but who may have competencies equal or superior to those required for successful completion of Mathematics 151 or 161 may, at the discretion of the chairman of the Department of Mathematical Sciences, take a waiver examination for either of these courses. An acceptable score on this exam waives the requirement that one of the introductory mathematics courses be taken. This waiver does not grant academic credit.

REQUIRED PHYSICAL EDUCATION

Through participation in the required physical education program, students should expect to develop an understanding of the role of life-long physical activity in enhancing the quality of one's life.

The University requires all students to complete with a passing grade Physical Education 101, Foundations of Physical Activity. Transfer students who have not had an equivalent course must also complete this requirement. Handicapped students are encouraged to participate to the fullest extent possible in physical education activities and are encouraged to consult with the chairman of the Department of Health, Physical Education, and Recreation concerning participation in these activities.

The University requires all students to provide information regarding their current health status on the Report of Medical History form available through the Admissions Office. Completion of this requirement is a prerequisite to:

1) enrollment in any physical education activity course,
2) participation in any intramural activity, or
3) utilization of the physical education facilities for recreational purposes.

Based on the information contained in this report, the student will be assigned to one of three categories listed below:

A. Unrestricted participation
B. Restricted participation
C. Temporarily restricted participation because of an injury or illness.

COURSE DESCRIPTIONS

All undergraduate courses offered in the College of Arts and Sciences, the Cameron School of Business Administration, the School of Education, and the School of Nursing are listed following the appropriate departmental degree requirements. Not all of the courses listed are offered within a single academic year. A listing of the courses offered during a given semester is printed in a Class Schedule Booklet, which is placed in each student's University mailbox before preregistration each semester.

PLEASE NOTE: A hyphen connecting courses (e.g., 201-202) indicates that the first course in the sequence must be satisfactorily completed prior to registration in the second course of the sequence. When course numbers are separated by a comma (e.g., 201, 202), the first course is not necessarily prerequisite to those following. The semester hours credit for each course is indicated in parentheses following the course title.

TRIAL COURSES

Academic departments may offer special trial courses during the fall and spring semesters on a one-time basis without adding them to their regular departmental offerings. A second trial offering, if additional data are essential, must be within two regular semesters of the first. Numbers designating these special courses are 292 and 492. Descriptive information on trial courses does not appear in the catalogue, but is on file in the Office of the Registrar.

DIRECTED INDIVIDUAL STUDY

This course designated as 491 in each department involves investigation beyond what is offered in existing courses. To enroll in a Directed Individual Study, students must have an overall grade point average of at least 2.0 and the approval of 1) the faculty member who would direct the study, 2) the departmental chairman, and 3) the appropriate dean. Departmental criteria will include 1) the availability of the instructor (ordinarily instructors will not supervise more than six student credit hours of Directed Individual Study per semester), 2) the appropriateness of and need for the proposed study in the student's program, 3) the availability of library and other research resources, and 4) the feasibility of completion of the proposed study in the allotted time. Students are limited to nine credit hours of Directed Individual Study toward graduation requirements, not more than three of which can be outside the area of concentration.

COLLEGE OF ARTS AND SCIENCES

Daniel B. Plyer, *Dean*
Gary L. Faulkner, *Assistant Dean*
Jo Ann Seiple, *Assistant Dean*
John L. Stokes, *Assistant Dean*
Charles R. Ward, *Director of Mathematics and Science Education Center*

The College of Arts and Sciences offers a variety of programs in the liberal arts leading to the Bachelor of Arts and Bachelor of Science degrees. To implement these programs, the College provides instruction, research, and creative opportunities in the fine arts and humanities as well as in the natural, physical, and social sciences. The fifteen academic departments in the College provide courses of study in each of these areas, in addition to the interdisciplinary programs in social science and environmental studies, a professional program in medical technology, and pre-professional programs in agriculture and forestry, dentistry, engineering, law, medicine, optometry, pharmacy, physical therapy, and veterinary medicine. The College also offers graduate programs in Geology and in Marine Biology leading to the Master of Science degree.

Degree requirements for all undergraduate concentrations available in the College of Arts and Sciences are listed below by departments. Requirements for the Master of Science degrees are listed in the Graduate Studies section, while those for professional, pre-professional, and special programs are listed in those sections of this catalogue.

DEPARTMENTAL REQUIREMENTS

ANTHROPOLOGY

(See Sociology and Anthropology)

ARMY ROTC

(See Military Science)

ART

(See Creative Arts)

BIOLOGICAL SCIENCES

Dr. Merritt, *Chairman*. Dr. Ballard, Dr. Biggs, Dr. Cahoon, Dr. Clavijo, Dr. Dillaman, Dr. Dodd, Dr. Dunn, Dr. Fugler, Dr. George, Dr. Hackney, Dr. Hosier, Dr. Hulbert, Dr. Kapraun, Mrs. Kendrick, Dr. Lindquist, Dr. Lundeen, Dr. McCrary, Dr. Mintzes, Dr. Padgett, Dr. Parnell, Dr. Plyler, Dr. Roer, Dr. Roye, Dr. Shafer, Dr. Sieren, Dr. Sizemore, Dr. Webster.

Requirements for a concentration in Biology for the B.A. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. In addition to those requirements, there are three options described below, one of which a student must elect in order to complete the degree requirements.

Option 1.

Biology 495 and a minimum of 25 hours chosen from courses numbered above 299, of which at least one course must be from each of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology; Chemistry 101-102 with lab or 105-106-102 with lab; a minimum of 16 hours chosen from the listed courses in at least two of the following areas: Chemistry 211, 212, 335; Computer Science 105, 111, 121; Geology 101, 102, 150; Mathematics 151, 152, 161, 162, 261; Physics 101 or 105,

102, 201, 202, 260; Psychology 456, 457; Statistics 215. With the advanced approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is a flexible program which can be designed by a student and an advisor to meet personal educational goals and interests which may or may not include graduate study; the program may be used to meet a set of specific requirements, for example, certification for teaching at the secondary school level.

Option 2.

Biology 335, 366, 475, 495; at least two of the following: Biology 356, 452, 454, 456, 457; a minimum of 10 hours chosen from Biology 315, 316, 345, or 355, 375, 466, 477, 491; Chemistry 101-102 with lab or 105-106-102 with lab; a minimum of 16 hours chosen from Chemistry 211, 212; Mathematics 111, 112; Geology 101, 102; Psychology 457; Statistics 215; Computer Science 105, 111. With the advanced approval of the faculty advisor and the department chairman, other courses may be substituted for the collateral electives listed above. A "C" or better average on Biology courses above 299.

This option is designed for students interested in studying freshwater and terrestrial higher plants and animals and who will pursue graduate study and/or careers in such fields as systematics, ecology, fish and game management, and nature interpretation in parks and wilderness areas.

Option 3.

Biology 315, 335 with lab, 345, 347 or 465, 495; a minimum of 8 hours chosen from Biology 316, 371, 410, 425, 435, 440, 441, 477. Collateral requirements are Chemistry 101 and 102 with lab, 211 and 212 with lab, 235; Physics 101 and 102 with lab; Mathematics 151, 152. A "C" or better average on Biology courses above 299.

This option is designed for students who wish preprofessional training in medicine, dentistry, optometry, and other health care fields. The sequence of courses conforms to entrance requirements prescribed in publications of the Association of American Medical Colleges, the American Association of Dental Schools, and the council on Optometric Education of the American Optometric Association.

Requirements for concentration in Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 315 or 375 or 474, 335 with lab, 345 or 355 or 347 with lab, 366, 495, and a minimum of 8 additional hours in courses numbered above 299, one course each from two of the following three groups of courses: advanced botany, advanced zoology, molecular/cellular biology. Collateral requirements are Chemistry 101-102 with lab or 105-106-102 with lab, 211-212 with lab; Physics 101-102 or 201-202; Mathematics 151 and Statistics 215. Students planning to attend graduate school are urged to take Chemistry 235, Mathematics 152, Computer Science 111, 121, 125, 126, and French 201-202 or German 201-202. A "C" or better average on all Biology courses above 299. This degree program is designed for those students who plan to attend graduate school or seek employment in various fields of biological specialization.

Requirements for concentration in Marine Biology for the B.S. degree: Basic core requirements are Biology 205, 206, 207, and 208 which must be taken within the first four semesters. Biology 362, 366, 345 or 355 or 347 with or without lab; 315 or 316 or 335 with or without lab or 474; 495; a minimum of 10 hours selected from the following: 365 or 481, 446 or 472, 457, 458, 462, 468. Collateral requirements are Chemistry 101-102 with lab or 105-106-102 with lab; Geology 150; Physics 101-102 or 201-202; Mathematics 111-112 or 115-151 or a higher sequence; a minimum of 4 semester hours chosen from

Chemistry 211, 212, 235, 475; Computer Science 111, 121, 125; Geography 430; Geology 101, 231; Statistics 215. A "C" or better average on Biology courses above 299.

This degree program is designed for those students who plan to attend graduate school or seek employment in fields of biological specialization which are marine related.

For the purpose of satisfying degree requirements in Biology, the following are considered to be courses in

Advance Botany: 355, 375, 446, 472, 474, 475, 477; Advanced Zoology: 315, 316, 345, 356, 365, 452, 454, 456, 457, 458, 462, 481; Cellular-molecular Biology: 335, 347, 410, 425, 430, 440, 465, 467.

Requirements for Teacher Certification in Biology: In addition to completing the requirements for a degree in Biology or Marine Biology and the other requirements of the Teacher Education Program, the following courses are required for certification: Biology 315; 235 or 335 with or without lab; 345 or 347 with or without lab or 355; and 366.

Biology Course Descriptions

BIO 105. Concepts of Modern Biology (4) An introduction to the diversity of life and the principles governing living systems, focusing on the role of man in the natural world. This course employs multi-media instructional materials and is designed for the nonbiology major. Three lecture hours and three laboratory/discussion hours each week.

BIO 108. Introduction to Medical Technology (1) A suruvey of medical laboratory technology as a career option. Explores the many disciplines encompassed by the profession including microbiology, chemistry, blood banking, and hematology as they apply to the medical diagnostic laboratory, as well as brief considerations of cytotechnology and histo-technology. The course includes a discussion of the nature and scope of necessary skills, opportunities for advancement, certification requirements, and visits to a hospital laboratory. One hours and fifteen minutes each week.

BIO 205, 206, 207, 208. Core courses for biology majors; must be completed within the first four semesters.

BIO 205. Introductory Biology: Plants (4) Classification, morphology, physiology, and ecology of seed plants with introductory survey of algae, fungi, bryophytes, and lower vascular plants. Three lecture and three laboratory hours each week.

BIO 206. Introductory Biology: Animals (4) Classification, morphology, physiology, and ecology of animals, including brief survey of major phyla and discussion of human body systems. Three lecture and three laboratory hours each week.

BIO 207. Introductory Biology: Cells (3) An introduction to the cell as the basic unit of life. Cell structure is integrated with such functions as the utilization of food energy, the expression of genetic potential, cell movement, and reproduction. Three lecture hours each week.

BIO 208. Biological Literature Search Techniques (1) An introduction to primary literature resources in the biological sciences with emphasis on use of various abstracting and indexing publications. One hour each week.

BIO 216. (Physical Education 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three laboratory hours each week.

BIO 217. (Physical Education 217) Human Anatomy and Physiology II (3) The study of human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

BIO 225. Bacteriology (3) Prerequisite: Credit in Biology. Open only to nursing students. Bacteria and related organisms; laboratory work in common bacteriological techniques. Two lecture and three laboratory hours each week.

BIO 235, 236, 237, 238. Elective courses primarily for non-major students, emphasizing "man in the natural world;" two or more to be offered each semester.

BIO 235. Genetics in Human Affairs (3) A discussion of basic principles of genetics for non-majors or majors with the ultimate goal of developing and understanding of the relationship of genetics to the society of today and its possible influence on the future of man. A survey of current knowledge of the inheritance of human traits is included. Three lecture hours each week.

BIO 236. Biology of the Sea (3) An introduction to marine environments, the diversity of marine life and the role of man in the utilization of marine resources. Students will become acquainted with local marine habitats, including: salt marshes, sandy beaches, tidal flats and rocky shores. Three lecture hours each week.

BIO 237. Plants and Civilization (3) An introduction to the plant kingdom, the diversity, structure, and function of plant life, and the impact of plants on human culture, history, civilization and economics. Three lecture hours each week.

BIO 238. Microbes and Human Society (3) An introduction to the world of the microorganism, focusing on the diversity, structure and function of microbial life, and spread and control of disease-producing organisms, and the impact of these life forms on human culture, history, and civilization. Three lecture hours each week.

BIO 240-241. Human Anatomy and Physiology (4-4) A comprehensive introduction to the anatomy and physiology of the human organism. Organ systems of the body are discussed individually and as parts of interacting groups, with emphasis on the processes which maintain an internal steady-state. Three lecture and three laboratory hours each week.

BIO 246. Microbiology of Human Diseases (4) Prerequisite: Biology 240. An introduction to the biology of microorganisms which affect humans. Emphasizes pathogenic and related microorganisms. The basic microbiological techniques needed to isolate, identify and control microorganisms will be covered. Three lecture and three laboratory hours each week.

BIO 315. Comparative Vertebrate Anatomy (4) Prerequisite: Biology 206. Comparative morphology and phylogenetic interrelationships of vertebrate animals; representative organisms dissected in laboratory. Three lecture and three laboratory hours each week.

BIO 316. Vetebrate Embryology (4) Prerequisite: Biology 206. Fundamental principles of embryonic development of vertebrate animals; frog, chick, and pig emphasized. Three lecture and three laboratory hours each week.

BIO 335. Genetics (3) Prerequisite: Core courses. Principles of Mendelian heredity, linkage, mutation, population genetics, and gene action. Three lecture hours each week.

BIO 335-51. Genetics Laboratory (1) Prerequisite: Core Courses. Corequisite: Biology 335. Demonstration of basic heredity principles through study of Drosophila and other genetic systems. Three laboratory hours each week.

BIO 341. Clinical Calculations (1) Prerequisite: Junior status. Laboratory calculations specifically for Medical Technology majors, although it is open to other majors as well. Reviews basic chemical calculations and introduces the common mathematic applications in medical/biological laboratory. One hour each week.

BIO 345. Animal Physiology (4) Prerequisite: Biology 206, 207, and Chemistry 102. Comparative study of physiological processes in different organisms approached through study of tissues, organs, and systems. Three lecture and three laboratory hours each week.

BIO 347. Molecular Biology of the Cell (3) Prerequisite: Biology 207 and Chemistry 311-312. Chemical and physical properties of cells. Emphasis on molecular biology and experimental biological systems used to elucidate cellular function. Three lecture hours each week.

BIO 347-51. Molecular Biology of Cell Laboratory (1) Prerequisite or corequisite: Biology 347. Experiments demonstrating basic phenomena underlying cellular function. Three laboratory hours each week.

BIO 349. (Physical Education 349) Physiology of Exercise and Sport (4) Prerequisite: Biology 215 or 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

BIO 355. Plant Physiology (4) Prerequisite: Biology 205, 207, and Chemistry 102. A study of plant function at the molecular, cellular, and organismic levels. Emphasis placed on unique aspects of vascular plants. Topics include water relations, solute tranport, photosynthesis, nitrogen metabolism, plant hormones, photocontrol of development, and stress physiology. Three lecture and three laboratory hours each week.

BIO 356. Vertebrate Natural History (4) Prerequisite: Biology 206. Identification, classification, and life histories of common vertebrate animals of eastern North Carolina with emphasis on field work. Two lecture and four laboratory hours each week.

BIO 362. Marine Biology (4) Prerequisite: Biology 205, 206. The costal and oceanic biota and their relationships to the marine environment. Three lecture and three laboratory hours each week.

BIO 365. Invertebrate Zoology (4) Prerequisite: Biology 206. Invertebrate organisms with emphasis on structure, function, taxonomy, phylogeny, and life histroies. Three lecture and three laboratory hours each week.

BIO 366. Ecology (4) Prerequisite: Core courses and upper level credit. Ecological principles pertaining to both plant and animals. Three lecture and three laboratory hours each week.

BIO 371. Human Fungal Diseases (1) Prerequisite: Biology 205 or 215 or permission of instructor. An in-depth consideration of human mycotic diseases for medical technology, nursing and premedical students. Emphasis will be placed on etiology, predisposing conditions, clinical diagnosis, immunology, serology and therapy of most presently recognized human mycoses. One hour each week.

BIO 375. Plant Morphology (4) Prerequisite: Biology 205. Morphological survey of algae, fungi, bryophytes, lower vascular plants, and seed plants with emphasis on life histories, structure, and development. Three lecture and three laboratory hours each week.

BIO 410. (Marine Biology 512) Electron Microscopy and Cell Ultrastructure (3) Prerequsite: Biology 347. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and function of cell organelles in plants and animals. Three lecture hours each week.

BIO 410-51. (Marine Biology 512-51) Electron Microscopy Laboratory (1) Corequisite: Biology 410 and permission of instructor. Techniques for fixing, embeding, and thin sectioning of tissues will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours each week.

BIO 415. (Marine Biology 520) Vertebrate Histology (4) Prerequsite: Core courses. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

BIO 425. Microbiology (4) Prerequisite: Core courses. A study of nonpathogenic and pathogenic microorganisms with emphasis on the biology of viruses and bacteria. Laboratory sessions will include the techniques required to identify, culture and stain selected microorganisms. Three lecture and three laboratory hours each week.

BIO 430. (Anthropology 430) Evolutionary Biology (3) Prerequisite: Biology 335. Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three lecture hours each week.

BIO 435. (Marine Biology 535) Molecular Genetics (3) Prerequisite: Chemistry 102 and Biology 335 and 347 or 465. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein synthesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity, synthesis, and function. Three lecture hours each week.

BIO 436. (Marine Biology 536) Recombinant DNA Techniques (2) Prerequisite: One of the following: Biology 335, 347, or 465. Basic principles and techniques of gene cloning using three major types of cloning vectors; lambda phage, plasmids, and the single stranded DNA phage M13. Provides hands-on experience in recombinant DNA methology. One lecture and four laboratory hours each week.

BIO 440. (Marine Biology 544) Developmental Biology (4) Prerequistes: Core courses. Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, harmones, and environmental control of development. Plant and animal systems studied in modern research literature will be discussed. Three lecture and three laboratory hours each week.

BIO 441. Introduction to Immunology (1) Prerequisite or corequisite: Chemistry 211. A general survey of modern immunological principles. One lecture hour each week.

BIO 445. (Marine Biology 545) Marine Physiology (4) Prerequisite: Biology 365. Introduction to physiological system characteristic of marine vertebrates and invertebrates. Emphasis on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion, and movement. Three lecture and three laboratory hours each week.

BIO 446. Phycology (4) Prerequisite: Biology 205. An introductory survey of algal groups including benthic planktonic freshwater and marine representatives in local environments. Morphology, life histories, and ecology are emphasized. Collection and preservation techniques are demonstrated. Three lecture and three laboratory hours each week.

BIO 452. (Marine Biology 554) Mammalogy (4) Prerequisite: Core courses. A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptation, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lecture and three laboratory hours each week.

BIO 454. (Marine Biology 557) Herpetology (4) Prerequisite: Core courses. Study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

BIO 456. (Marine Biology 556) Ornithology (4) Prerequisite: Core courses or consent of instructor. An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

BIO 457. (Marine Biology 537) Ichthyology (4) Prerequisite: Core courses. The systematics, evolution, and natural history of fishes, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

BIO 458. (Marine Biology 565) Fisheries Biology (4) Prerequisite: Biology 457, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, repro-

duction, migration, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

BIO 460. (Marine Biology 567) Limnology (4) Prerequisite: Core courses and Chemistry 102. An examination of the physical, chemical, and biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

BIO 462. (Marine Biology 552) Deep Sea Biology (3) Prerequisite: Biology 362. Biology of animals inhabiting the deep sea environment off North Carolina. Emphasizes faunal zonation, abyssal zoogeography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea. Three lecture hours each week.

BIO 465. (Marine Biology 540) Biochemistry (3) Prerequisite: Chemistry 212. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids; enzymes kinetics; bioenergetics, regulatory mechanisms. Three hours each week.

BIO 466. (Marine Biology 534) Advanced Ecology (4) Prerequisite: Biology 366. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

BIO 468. (Marine Biology 570) Planktonology (4) Prerequisite: Biology 365 or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

BIO 470. Ecology of Human Populations (3) Prerequisite: Biology 345, 366. A study of man's adaptation to diverse world environments utilizing geological, physiological, and ecological principles. Three hours each week.

BIO 472. (Marine Biology 572) Marine Phycology (4) Prerequsite: Core courses. An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

BIO 474. (Marine Biology 576) Comparative Morphology of Vascular Plants (4) Prerequisite: Core courses. An in-depth study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

BIO 475. (Marine Biology 574) Plant Taxonomy (4) Prerequisite: Core courses or consent of instructor. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of Southeastern North Carolina. Two lecture and four laboratory hours each week.

BIO 477. Mycology (4) Prerequisite: Biology 205 and 207. Taxonomy, morphology, and ecology of fungi with emphasis on fungal evolution and the importance of fungi to humans. Fungi as causal agents of both plant and animal diseases will also be discussed. Three lecture and three laboratory hours each week.

BIO 480. (Marine Biology 580) Field Studies in Biology (1-6) Prerequisite: Biology 205 and 206, and consent of instructor (Biology 366 and credit in advanced zoology or botany recommended). A research/experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

BIO 481. (Marine Biology 559) Marine Invertebrate Zoology (4) Prerequisite: Core courses. A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

BIO 485. (Marine Biology 585) Special Topics in Advanced Biology (1-6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

BIO 491. Directed Individual Study (1-3) Prerequisite: Biology 208, junior or senior standing, consent of instructor, and consent of department chairman.

BIO 495. Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Individual reports and group discussions of the results of student field, laboratory and/or library research on selected topics in Biology. May be repeated for a maximum of 3 semester hours.

BIO 499. Honors Work in Biology (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

CHEMISTRY

Dr. Levy, *Chairman*. Dr. Adcock, Dr. Burgess, Dr. Cahill, Dr. Hornack, Ms. R.B. Jones, Dr. S.B. Jones, Dr. Manock, Dr. Martin, Dr. Nance, Dr. Reeves, Dr. Sayed, Dr. Ward, Dr. Willey.

Requirements for a concentration in Chemistry for the B.A. degree:

Core courses: Chemistry 101-102, 101-51, 102-51, 211-212, 211-51, 212-51, 225, 235, 235-51, 325, 325-51, 355, 445, 495 or Environmental Studies 495, Mathematics 161-162, and Physics 201- 202 or 101-102.

Also required are the courses in one of the following emphasis alternatives:

Education: Education-Psychology block of 31 semester hours, and four of the following courses: Biology 205, 206, 207; Geology 101, 120, and 150; and Physics 260. Students completing this option qualify for teaching certification in chemistry. By including one biology course from Biology 205, 206, 207 and two geology courses from Geology 101, 120, and 150, students completing this option also qualify for certification in science.

Environmental Science: Chemistry 277, Biology 205 or 206 or 207, Environmental Studies 195, Geology 120, and Statistics 215. Among the core courses, Environmental Studies 495 is required.

Industrial Chemistry: Chemistry 277 and 485, Chemistry 315-316 or 435 and 435-51, Accounting 201, Business 217 or Statistics 215, and Business 313. Chemistry 485 offered Spring 1989 and alternate years.

Marine Science: Chemistry 475, Biology 205 or 206 or Geology 101, 150, and either Biology 362 or Geology 450.

Premedical Science: Chemistry 417 and 465 and Biology 206, 207, and 315. Chemistry 417 offered Spring 1990 and alternate years.

A "C" or better on each Chemistry course.

Requirements for a concentration in Chemistry for the B.S. degree:
Chemistry 101-102, 101-51, 102-51, 211-212, 211-51, 212-51, 225, 235, 235-51, 315-316, 321-322, 321-51, 322-51, 355, 435, 435-51, 445; either 445-51, 465-51, 476, or 491 (1 hour); 495 and two of the following: 415, 446, 465, 485, and 491 (3 hours). Mathematics 161, 162, 261, and 361 and either Physics 201-202 or Physics 101-102, 206-207. A C" or better on each Chemistry course. Students working for the B.S. degree should arrange their work so as to take Chemistry 321-322 in the junior year. Two years of German are recommended.

Chemistry Course Descriptions

CHM 101-102. General Chemistry (3-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Normally taken concurrently with General Chemistry Laboratory (101-51, 102-51). Three hours each week.

CHM 101-51, 102-51. General Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 101-102. Introduction to techniques and equipment in the chemistry laboratory; interpretation of experimental results. Quantitative and qualitative analysis included. Three laboratory hours each week.

CHM 105-106-102. General Chemistry (2-2-3) Prerequisite or corequisite: Mathematics 111-112 or 115. Fundamental laws, principles, and theories of chemistry and a study of selected elements and compounds. Chemistry 105-106 is a slower-paced equivalent of Chemistry 101. General Chemistry Laboratory 101-51 is normally taken concurrently with Chemistry 106, and Chemistry 102-51 is taken with Chemistry 102. Chemistry 105-106, two hours each week. Chemistry 102, three hours each week.

CHM 103. Chemistry in Everyday Life (4) A terminal, relatively non-mathematical one-semester course in chemistry for the non-science major. Topics include atomic and molecular structure as a basis for a general understanding of chemical reactions, drug activity, cancer, nuclear power, pesticides, environmental problems, energy resources, food additives, and the chemical industry. Three lecture and three laboratory/discussion hours each week. May not be taken for credit after Chemistry 102 has been passed.

CHM 115. Fundamentals of General Chemistry (3) Prerequisite or corequisite: Mathematics 111. A one-semester introduction to fundamental laws, principles, and theories of chemistry, and study of selected elements and compounds. Prepares students for Chemistry 215. May not be taken for credit after another General Chemistry course has been passed. Three lecture hours each week.

CHM 115-51. Laboratory for Fundamentals of General Chemistry (1) Corequisite: Chemistry 115. Introduction to techniques and equipment in the chemistry laboratory and interpretation of experimental results. Three laboratory hours each week.

CHM 211-212. Organic Chemistry (3-3) Prerequisite: Chemistry 102 and 102-51. Introduction to the chemistry of carbon compounds, including structural theory, synthesis, and reaction mechanisms. Normally taken concurrently with Organic Chemistry Laboratory (211-51, 212-51). Three hours each week.

CHM 211-51, 212-51. Organic Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 211-212. Three laboratory hours each week.

CHM 215. Fundamentals of Organic and Biological Chemistry (3) Prerequisite: Chemistry 115 and 115-51 or 102 and 102-51. A one-semester introduction to the chemistry of carbon compounds with emphasis on those involved in biological processes, including proteins, carbohydrates, lipids, nucleic acids, vitamins, and hormones. May not be taken for credit after Chemistry 311 has been passed. Three hours each week.

CHM 215-51. Laboratory for Fundamentals of Organic and Biological Chemistry (1) Corequisite: Chemistry 215. Introduction to equipment and techniques of organic and biological chemistry and interpretation of experimental results. Three laboratory hours each week.

CHM 225. Chemical Applications of Microcomputers (1) Prerequisite: Chemistry 102. A study of microcomputer applications in chemistry including an introduction to microcomputer design, peripherals, software, and preventive maintenance. Discussion of microcomputer communications and instrument interfacing. Programming in BASIC with chemical applications. No previous computer experience required. Intended for students who will be taking Chemistry 235, 321, or 325. Two hours each week.

CHM 235. Quantitative Analysis (2) Prerequisite: Chemistry 102, 102-51 and 225 or equivalent experience. The theory of (a) gravimetric and volumetric analysis, (b) instrumental techniques, and (c) sampling, sample preparation, and monitoring of air, water, etc. Normally taken concurrently with Quantitative Analysis Laboratory. Two hours each weeek.

CHM 235-51. Quantitative Analysis Laboratory (2) Prerequisite or corequisite: Chemistry 235. Four laboratory hours each week.

CHM 277. Environmental Chemistry (3) Prerequisite: Chemistry 102. Introduction to the chemistry of air, soil, and natural waters. Processes of environmental degradation, cleanup, and pollution prevention. Selected current topics. Three hours each week.

CHM 315-316. Advanced Techniques of Organic Chemistry (2-2) Prerequisite or corequisite: Chemistry 211-212 and 211-51, 212-51. Theory and practice of chromatographic methods of separation and spectroscopic methods of identification. One lecture and three laboratory hours each week.

CHM 321. Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent, Physics 202, and Mathematics 261. Properties of matter, kinetic molecular theory, fundamentals of thermodynamics, phase equilibria, thermodynamics of chemical reactions, ionic equilibria, and electrochemistry. Three hours each week.

CHM 322. Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent, Physics 202, and Mathematics 261. Chemical kinetics, introduction to quantum mechanics, atomic and molecular structure, and spectroscopy. Three hours each week.

CHM 321-51, 322-51. Physical Chemistry Laboratory (1-1) Prerequisite or corequisite: Chemistry 321 and 322, respectively. Three laboratory hours each week.

CHM 325. Brief Physical Chemistry (3) Prerequisite: Chemistry 102, 225 or equivalent experience, one sequence in Physics and Mathematics 151 or 161. An abbreviated course in fundamentals of physical chemistry. Normally taken concurrently with Brief

Physical Chemistry Laboratory (325-51). May not be taken for credit after 321 has been passed. Three hours each week.

CHM 325-51. Brief Physical Chemistry Laboratory (1) Prerequisite or corequisite: Chemistry 325. Three laboratory hours each week.

CHM 355. History and Literature of Chemistry (1) Prerequisite: Junior standing. Introduction to chemical literature and sources of information and to the historical development of chemistry. One hour each week.

CHM 415. Advanced Organic Chemistry (3) Prerequisite: Chemistry 212. Theoretical organic chemistry with emphasis on reaction mechanisms and special synthetic methods. Three hours each week.

CHM 417. Medicinal Chemistry (3) Prerequisite: Chemistry 212. Systematic study of the chemistry, as well as the biological activity, or hormones, vitamins, drugs affecting the nervous system, and other miscellaneous agents. Prior Chemistry 415 or Chemistry 465 is recommended. Three hours each week. Spring 1990 and alternate years.

CHM 435. Advanced Analytical Chemistry (2) Prerequisite: Chemistry 235, 321 or 325, and their laboratories. Theory of modern analytical instrumentation and techniques. Normally taken concurrently with Advanced Analytical Chemistry Laboratory (435-51). Two hours each week.

CHM 435-51. Advanced Analytical Chemistry Laboratory (2) Prerequisite or corequisite: Chemistry 435. Four laboratory hours each week.

CHM 445. Inorganic Chemistry (3) Prerequisite: Chemistry 321 or 325. Study of periodic relationships: crystal lattice theory; transition metals and ions; crystal field theory; organometallic structures and reactions; and reaction mechanisms. Three hours each week.

CHM 445-51. Inorganic Synthesis (1) Prerequisite or corequisite: Chemistry 445. Synthesis and techniques in inorganic chemistry. Normally taken concurrently with Inorganic Chemistry (445). Three laboratory hours each week.

CHM 446. Advanced Inorganic Chemistry (3) Prerequisite: Chemistry 445. Topics in inorganic chemistry, including ligand field theory: chemical applications of group theory; hybridization of orbitals and molecular orbital theory, molecular vibration, spectroscopy, and principles of quantum mechanics. This course will emphasize these topics in the framework of molecular symmetry. Three hours each week.

CHM 465. Biochemistry (3) Prerequisite: Chemistry 212 and either 321 or 325. Study of the physical structures of carbohydrates, lipids, amino acids, proteins, nucleic acids, vitamins and minerals and the chemical principles governing their biological activity. Special emphasis will be given to enzyme kinetics, solution properties of macromolecules, and the thermodynamic principles of intermediary metabolism. Three hours each week.

CHM 465-51. Biochemical Techniques and Instrumentation Lab (1) Prerequisite: or corequisite: Chemistry 465. Theory and practice of advanced biochemical techniques, including buffer and reagent preparation, protein assay, protein purification, electrophoresis, enzyme kinetics, tryptic peptide digestion, membrane vesicle construction, DNA isolation, and radioisotope detection. Three hours each week.

CHM 475. (Marine Biology 589) Chemical Oceanography (3) Prerequisite: Chemistry 102. Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week. Spring 1990 and alternate years.

CHM 476. (Marine Biology 588) Chemical Analysis of Natural Waters (2) Prerequisite: one of the following: Chemistry 235, 277, or 475. Standard chemical methods will be used to analyze natural water samples, including several fresh water samples and seawater. Methods will be evaluated with respect to appropriate applications. Analyses to be studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended material, and dissolved metals. One lecture and three laboratory hours each week. Spring 1989 and alternate years.

CHM 485. Industrial Chemistry (3) Prerequisite: Chemistry 212 and either 321 or 325. The characteristics of large scale chemical processes, including materials of construction, reactor design, fluid transport, solvent recovery and reuse, quality control, and environmental impact. Specific example processes include the conversion of raw petroleum feedstocks to plastics, fibers, and fuels, and the production of ethical drugs. Three hours each week. Spring 1989 and alternate years.

CHM 491. Directed Individual Study (1-3) Prerequiste: Junior or senior standing and consent of department chairman.

CHM 495. Senior Seminar (1-3) Prerequisite: Chemistry 355 and 25 semester hours of chemistry courses. Discussion of selected topics. One hour each week.

CHM 499. Honors Work in Chemistry (2-3) Prerequisite: Second semester junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

COMPUTER SCIENCE

(Mathematical Sciences)

CREATIVE ARTS

Mr. Sporre, *Chairman.*

The Department of Creative Arts is comprised of divisions of Art, Drama, Music, and Speech Communication. The department offers concentrations leading to the B.A. degree in (1) Creative Arts in Art and Drama, (2) Music and (3) Speech Communication.

CRA 110 Introduction to the Arts (3) An inter- and multi-disciplinary introduction to the arts, aesthetic perception and response, and the relationship of the arts to individuals and society — past and present. Treats visual art, music, theatre, dance, film and architecture.

ART

Ms. Conner, Mr. Furst, Mr. LeQuire, Dr. Myers.

Requirements for a concentration in Creative Arts-Art for the B.A. degree: Art 101, 102, 111, 112; either Art 211 or 212; six hours chosen from Art 201, 202, 204; three hours of three or four hundred level art history; three hours chosen from Music 261 or 262; three hours chosen from Drama 321, 322, 323; six hours chosen from practical and theoretical courses in Drama or Music (histories not included); twenty-four hours chosen from three studio areas. Electives chosen in consultation with the advisor. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Art Course Descriptions

(Department of Creative Arts)

ART 101,102. Design (3,3) 101: Study of the principles of two-dimensional design and introduction to color theory. **102:** Study of the concepts of three-dimensional design and of the nature of problem solving. One lecture and six studio hours each week.

ART 111, 112. Drawing Fundamentals (3, 3) Fundamentals of drawing using various media: charcoal, pencil, ink, etc. Four studio hours each week.

ART 201. Ancient World Through Medieval Period (3) A survey of art from ancient through medieval with an emphasis on major artistic developments in their historical and cultural context from 20,000 B.C. to 1400 A.D. Three hours each week.

ART 202. Renaissance Through Contemporary Art (3) A survey of art from the Renaissance to the present with an emphasis on major artistic developments in their historical and cultural context from 1400 A.D. to the present time. Three hours each week.

ART 204. Survey of American Art (3) A survey of American art from Colonial times to the present, with an emphasis on major examples of architecture, painting, sculpture, graphics and the decorative arts. Three hours each week.

ART 211. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, geometric form and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week.

ART 212. Beginning Life Drawing (3) Prerequisite: Art 111 or 112 with permission of instructor. Drawing from the model: structure, anatomy, and composition using various media: pencil, charcoal, india ink, etc. Six studio hours per week.

ART 221, 222. Beginning Ceramics (3, 3) Introduction to three-dimensional form and design in the manipulation of clays and glazes; basic techniques and approaches. One lecture and six studio hours each week.

ART 231, 232. Beginning Printmaking (3, 3) Prerequisite: Art 101 or 111 or 112 or permission of instructor. Problems in relief and intaglio using a variety of materials. May be taken in any sequence. Six studio hours per week.

ART 241, 242. Beginning Painting (3, 3) A beginning course investigating a variety of media, techniques, and subjects. Six studio hours each week.

ART 251, 252. Beginning Sculpture (3,3) Prerequisite: Art 102 or consent of instructor. Three-dimensional form in clay and plaster; basics of modeling and casting abstract and life forms. One lecture and six studio hours each week.

ART 306. Italian Renaissance Art (3) Prerequisite: Art 201, 202 or permission of instructor. A study of the development of art in Italy, 1200-1600 A.D., with an emphasis on painting, sculpture, architecture and graphics as related to Renaissance culture. Three hours each week.

ART 307. History of Printmaking (3) Survey of printed pictures from the 15th century to the present. An appreciation of the evolution of printmaking from its practical applications to Fine Art, including major artists as printmakers. Studio experience optional. Three hours each week.

ART 308. 20th Century Art (3) Prerequisite: Art 201, 202, 204, or permission of instructor. A study of movements and issues in art from 1900 to the present in Europe and the United States with an emphasis on developments as they contribute to contemporary art. Painting, sculpture, architecture, graphics and other vehicles of artistic expression will be discussed as they relate to these developments. Three hours each week.

ART 311. Intermediate Life Drawing (3) Prerequisite: Art 211, 212 or permission of instructor. Drawing from the model: structure, composition, development of personal expression. Six studio hours per week.

ART 312. Intermediate Life Drawing (3) Prerequisite: Art 211, 212 or permission of instructor. Drawing from the model: structure, anatomy, development of personal expression. Six studio hours per week.

ART 321, 322. Intermediate Ceramics (3,3) Prerequisite: Art 222 or consent of instructor. Continuation of three-dimensional forms and design in manipulation of clays and glazes; basics of kiln construction and chemistry of glazes. One lecture and six studio hours each week.

ART 331, 332. Intermediate Printmaking (3,3) Prerequisite: Art 231, 232 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen. May be taken in any sequence. Six studio hours per week.

ART 341, 342. Intermediate Painting (3,3) Prerequisite: Art 101, 242 or consent of instructor. Further exploration of painting techniques and expression. Six studio hours each week.

ART 351, 352. Intermediate Sculpture (3,3) Prerequisite: Art 252 or consent of instructor. Three-dimensional form in plaster, ceramics and metals. One lecture and six studio hours each week.

ART 385. Art in the Elementary School (3) Appreciation of art designed for elementary teachers, including studio work and art education theory. One lecture and three studio hours each week.

ART 387. (Anthropolgy 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums

under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition and education. Three hours each week.

ART 387-51. (Anthropology 387-51) Museum Studies Practicum (1) Corequisite: Art 387 (Ant 387). Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ART 411. Advanced Life Drawing (3) Prerequisite: Art 311, 312 or permission of instructor. Drawing from the model: drawing as a finished product, exploration of drawing techniques. Six studio hours per week.

ART 412. Advanced Drawing (3) Prerequisite: Art 411 or permission of instructor. Drawing as a finished product, exploration of drawing techniques and subject matter. Six studio hours per week.

ART 421, 422. Advanced Ceramics (3,3) Prerequisite: Art 322 or consent of instructor. Further experience in three-dimensional form and design and emphasis on kiln construction and theory; physical and chemical properties of clays and glazes including the empirical method of glaze calculation. One lecture and six studio hours each week.

ART 431,432. Advanced Printmaking (3,3) Prerequisite: Art 331 and 332 or permission of instructor. Further exploration of printmaking techniques in relief, intaglio, silkscreen and collograph. May be taken in any sequence. Six studio hours each week.

ART 441,442. Advanced Painting (3,3) Prerequisite: Art 342 or consent of instructor. Emphasis on techniques and expression. Six studio hours each week.

ART 451,452. Advanced Sculpture (3,3) Prerequisite: Art 352 or consent of instructor. Continuation of study of form with emphasis on casting and welding of metals. One lecture and six studio hours each week.

ART 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ART 495. Seminar in Art (1-3). Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

For 292 and 492, see explanation on p. 70.

DRAMA

Ms. DeMoss, Mr. Macie, Dr. Rogers, Mr. Sporre, Mr. Swink, Dr. Theodore.

Requirements for a concentration in Creative Arts-Drama for the B.A. degree: Drama 201, 205, 130 or 231, 307; six credits from Drama 321 or 322 or 323; three credits from Art 101 or 102 or 201 or 202 or 204; three credits from Music 105 or 115; nine credits of electives in Creative Arts outside of Drama. An option comprising one of the following also must be fulfilled. Option 1 (Acting): Drama 206, 232 (4 credits), 333 (4 credits), 355, and Communication 230. Option 2 (Directing): Drama 232 (4 credits), 306,

355, 455, 461 or 462. Option 3 (Design/Technical): Drama 202, 206, 305, 306, 405, 406. Option 4 (History and Theory): Drama 321 or 322 or 323; 345, 355, 461, 462. A "C" or better grade in all courses taken to meet the Creative Arts degree requirements.

Drama Course Descriptions

(Department of Creative Arts)

DRA 130. Improvisation (3) Exploration of spontaneous dramatic playing through intensive exercises and theatre games meant to generate greater individual freedom and self-discipline, as well as to employ improvisation techniques in acting to develop characterization, stage movement, and ensemble performance.

DRA 135. (Physical Education 102) Dance Techniques (1) Basic dance technique on a beginner level, including ballet, jazz, and modern dance.

DRA 136. Movement Exploration (2) Exploration of the relationship of dance to other art forms. Study through modern and creative dance techniques of the body's potential as a tool for creative expression, emphasizing the opportunity to demonstrate interrelationships in the arts through weekly choreographic assignments.

DRA 201. Technical Production I (3) Basic principles of scenic materials and equipment. Use of materials, methods of construction, and handling of scenery and properties. One lecture and six laboratory hours per week. Participation in the University Theatre productions required.

DRA 202. Technical Production II (3) Prerequisite: Drama 201 or consent of instructor. Practical training in shop organization and technical production, plus basic principles of theatrical graphics. Two lecture and four laboratory hours each week. Participation in University Theatre productions required.

DRA 205. Stage Make-up (2) Theory and practice in the application of make-up for theatrical performances. Four laboratory hours each week.

DRA 206. Costume History and Construction (3) An examination of major historical costume styles. The student also will learn basic costume construction techniques, applying those techniques to individual projects as well as to the costumes for departmental productions. Two lecture hours and three laboratory hours per week.

DRA 221. Introduction to the Theatre (3) Appreciation of theatre through an understanding of its artistic elements, history, dramatic literature, and audience involvement. Three hours per week.

DRA 225. History and Appreciation of Film (3) A survey through film of the development of motion picture from its primitive beginnings to the advent of sound film. A visual illustration of the basic aesthetic principles controlling film as art.

DRA 231. Acting I (4) Prerequisite: Permission of instructor. Use of body and voice as instruments of expression; development of acting exercise structure with mind and breathing control practiced. Three class hours and 2½ laboratory hours each week.

DRA 232. Acting II (4) Prerequisite: Acting I and/or permission of instructor. Continuing and expanding work on the use of body and voice. Further development of acting exercise structure with emphasis on improvisation and one scene study. Three class hours and 2½ laboratory hours each week.

DRA 235. Dance Technique II (1) Prerequisite: Dance Technique I or equivalent and consent of instructor. Basic dance technique on an intermediate level.

DRA 305. Scenic Design (3) Prerequisite: Drama 202 or consent of instructor. Play interpretation through the scenic elements. Problems in theatre graphics, techniques application, script interpretation, scenic design and style. Two class hours and two laboratory hours each week.

DRA 306. Stage Lighting (3) Prerequisite: Drama 202 or consent of instructor. Basic techniques of theatrical lighting. Includes fundamentals of electricity, lighting equipment, the use of color, and the basic principles of design. Two lecture and two laboratory hours each week. Participation in University Theatre productions required.

DRA 307. Theatre Management (3) Course focuses on various aspects of management: publicity, business management, public relations, and house management.

DRA 321, 322, 323. Theatre History (3,3,3) 321: Pre-Greek beginnings to seventeenth century. 322: Seventeenth century to nineteenth century. 323: Late nineteenth century to the present day. Three hours each week.

DRA 333. Acting III (1-4) Prerequisite: Acting I and II and/or consent of instructor. Scene study. A contractual course with individual student commitmennt concerning the number of scene studies to be attempted. Can be taken for up to four hours accumulative maximum.

DRA 345. Playwriting I (3) Analysis of one-act plays and their construction; the writing of an original one-act play required. Three hours each week.

DRA 355. Directing I (3) Fundamental principles of directing with emphasis on one-act productions. Three hours each week.

DRA 405. Scenic Design II (3) Prerequisite: Drama 305 or consent of instructor. An advanced approach to historical styles and special design problems, including the relationship of architecture to the mise en scene.

DRA 406. Costume Design (3) Application of the principles of theatrical design to stage costuming. Three hours per week.

DRA 425. Aesthetics of Film (3) A study of the various forms and content of film as controlled by the film director. The theoretical aspects of film as a work of art. Two class hours and two laboratory hours each week.

DRA 445. Playwriting II (3) Prerequisite: Drama 345 or permission of instructor. Advanced techniques of playwriting with emphasis on full length play; the writing of an original full length play. Three hours each week.

DRA 455. Directing II (3) Prerequisite: Drama 355. Advanced techniques in the direction of plays for the stage. Three hours each week.

DRA 461, 462. Seminar in Dramatic Theory (3,3) Prerequisite: Senior standing or consent of instructor. Growth and results of dramatic theory on theatre. 461: Aristotle to Romantic Period. 462: Ibsen to the present. Three hours each week.

RA 485. Senior Project (3) Every major may choose a specific area in drama for a senior project. The proposal for planning and executing a public presentation in the chosen area must be submitted to the faculty of the Department of Creative Arts for approval prior to the semester during which the project will be attempted.

RA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

RA 495. Theatre Seminars (1-3)

RA 499. Honors Work in Drama (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

MUSIC

r. Bongiorno, Dr. Deas, Dr. Errante, Dr. Hickman, Dr. Martin, Mr. McLamb, Dr. Rozier.

Requirements for a Concentration in Music for the B.A. degree: Students may nphasize either General Music or Performance. Core courses, common to either em-ıasis: Music 101, 102, 201, 202, 261, 262.

General Music: In addition to the core requirements the general music student will be quired to complete three hours of Art History (201 or 202) plus three hours of Introduction Theatre (DRA 221); 10 hours of applied music in the principal area, at least two hours the 300 level; four hours of applied music in a second area; six hours of major ensemble eyboard students may substitute up to two hours of 082 and/or 131); nine hours of Music ectives; and Recital (at least twenty minutes) or Thesis.

Performance: In addition to the core requirements, the student who emphasizes per-rmance must complete an additional five hours of Music Theory (MUS 301 and choice 302 or 303); six additional hours of Music History (MUS 361, 362, 363); 22 hours of plied music in the principal area (at least 12 hours at the 300 level). Students pursuing e composition emphasis noted below will substitute 16 hours of composition and six urs of applied music in a secondary area (at least two hours at the 300 level) for the 2 hour applied music requirement; 8 hours of major ensemble (three of these hours can e counted toward basic studies requirements); two recitals (the Junior Recital is normally half recital); three hours from ART 201, 202, or DRA 221, (also to be counted toward asic studies requirements); and 21 hours of music electives chosen according to the llowing emphases:

) Vocal Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 271, 272, 273, 274, 379, and eight hours of free electives.

) Keyboard Performance: Six hours of secondary applied music (not to include class piano); MUS 285; 275 or 276; 375 or 376; and six hours of free music electives.

) Keyboard Performance with Pedagogy: Three hours of secondary applied music (not to include class piano), MUS 285, 275, 276, 375, 376, two semesters of 475, and three hours of free music electives. Also, the major ensemble requirement stated above is reduced to six hours (three to be counted toward basic sudies requirements) of which only two hours can be substituted by 082 or 131.

) Instrumental Performance: Two hours of piano beyond the proficiency level, MUS 285, 485, 371, and 12 hours of free music electives.

(5) Composition: MUS 302 or 303, MUS 306, 307, seven hours of conducting, and eight hours of free music electives. The Junior Recital is a half recital in the composer's secondary appliedarea. The Senior Recital is to be in composition and should include the composer as a participant.

(6) Performance-Church Music: Two hours of secondary applied (the vocalist must take two hours in piano beyond the proficiency level, the keyboard student must take at least two hours in voice and complete the sophomore level of private voice study); MUS 285; 485 (choral); 255; 355; two hours from 243, 245, 247, or 249; 377, and four hours of free music electives (keyboard students must take 257 as part of the electives).

A "C" or better grade must be achieved in all courses taken to meet the Music degree requirements. All Music majors must pass the piano proficiency exam and the listening exams. All non-keyboard students who do not pass the piano proficiency examination upon entering the music program are required to enroll in the appropriate section of class piano every semester until the exam is successfully completed. All keyboard majors are required to take the piano proficiency every semester until it is passed.

Music students pursuing the vocal and instrumental performance options are required to take two hours of piano **beyond** the proficiency exam. The student must satisfactorily meet performance seminar and recital attendance requirements.

Admission to the music program requires an audition, interview, and theory placement test.

Music Course Descriptions

(Department of Creative Arts)

MUS 082. Accompanying (1) Prerequisite: Consent of instructor. Accumulative credit limited to eight semester hours. Student will be assigned an instrumentalist or vocalist with whom to work. One hourly class meeting per week, plus accompanying for lesson of soloist and adequate rehearsal time with soloist per week to prepare for the lesson of the soloist.

MUS 083. UNCW Chamber Singers (1) Select group drawn from the concert choir (086) by audition. Group studies the gamut of works from chamber works to secular and popular music. Two hourly rehearsals per week. Accumulative credit limited to eight semester hours.

MUS 084. Jazz Ensemble (1) Prerequisite: Consent of instructor. The study and performance of jazz techniques and interpretation of popular styles in large and/or small ensemble. Open to any student who has had instrumental experience. Participation is determined by audition at the beginning of each semester. One 2-hour rehearsal per week. Accumulative credit limited to eight semester hours.

MUS 085. Wind Ensemble (1) Open to any student who has had previous training or experience in instrumental music and who has the consent of the director. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 086. Concert Choir (1) Prerequisite: Auditions by director. Group studies and performs choral music of various historical periods and styles. May be repeated indefinitely. Accumulative credit limited to eight semester hours. Three studio hours each week.

MUS 087. Orchestra (1) Tuesdays 7:30-9:30 p.m. Auditions by director. Study and performance of the orchestral literature performed with the UNCW/Community Orchestra which meets for a minimum of two hours per week and gives an average of four performances per year. Accumulative credit limited to eight semester hours.

MUS 101. Theory I (3) Prerequisite: Placement test. Corequisite: Music 101-51. An indepth study of the basic materials of music, including the physics of sound, time classification, notation of pitch and rhythm, intervals, scales and modes, key signatures and triads. Three hours per week.

MUS 101-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 101. Includes melodic, harmonic and rhythmic dictation, singing and performing at the keyboard materials introduced in Music 101-01. Two hours per week.

MUS 102. Theory I (3) Prerequisite: Music 101. Corequisite: Music 102-51. A study of tonality, triads in inversions, phrase structure and cadences, harmonic progression, the technique of harmonization and nonharmonic tones. Three hours per week.

MUS 102-51. Aural Skills, Keyboard and Sight-Singing (0) Corequisite: Music 102. Application through dictation, Sight-Singing and keyboard exercises the materials introduced in Music 102-01. Two hours per week.

MUS 105. Rudiments of Music (3) A general survey of the basic materials of music, including the study of musical rudiments, listening experiences, Sight-Singing, keyboard, and other related activities. The course is designed for elementary education students, public school teacher recertification, music students who wish to prepare for Music Theory 101, and for students who wish to increase their knowledge of music. Three hours each week.

MUS 115. Survey of Music Literature (3) Designed to increase the student's knowledge and appreciation of music; technical knowledge of music not required. Three hours each week.

MUS 116. History of Jazz (3) A survey of the evolution of this American art form from its African roots and European influences to the present. Technical knowledge of music not required. Three hours each week.

MUS 117. American Music (3) A survey of American composers, musicians, and music making (classical, folk and religious) from the earliest days of European settlement to the present. Technical knowledge of music helpful, but not required. Three hours each week.

MUS 118. Survey of Electronic Music (3) A non-technical survey of electronic music, analytical study of compositions from recordings, and basic compositional methods utilizing the facilities of the UNCW Electronic Music Studio. Technical knowledge of music not required.

MUS 131. Chamber Music Workshop (1) Open to any student who has had previous training and experience and who has the consent of the chairman of the department. Small instrumental and vocal ensembles. Type of group will depend upon availability of personnel and faculty instructor. Two hours per week. Accumulative credit.

MUS 133. Opera Workshop (3) Prerequisite: Music 195 (Voice) or consent of instructor. The musical preparation and staging of operatic scenes through dramatic interpretation, body movement, and improvisation. Three hours each week.

MUS 134. Choral Workshop (3) Survey of choral literature of all periods, including contemporary and popular, through performance, score study, and analytical listening. Three hours each week.

MUS 141-142. Class Piano I (1-1) Prerequisite: Consent of instructor. Recommended for all students enrolled in Music Theory 101-102 and music majors who have not passed the piano proficiency examination. Laboratory hours as required.

MUS 143-144. Class Guitar (1-1) Prerequisite: Consent of instructor. Class instruction in classical guitar. Prior experience is not required. Two laboratory hours each week.

MUS 146. Class Voice (1) Prerequisite: Consent of instructor. Singing techniques learned through vocal exercises and study of song literature. Two hours each week. Accumulative credit.

MUS 195. Lower Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viol	Trombone
Cello	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 196. Lower Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 197. Lower Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 195.)

MUS 201. Theory II (3) Prerequisite: Music 102. Corequisite: Music 201-51. A study of the musical process as observed in the literature of the common practice period. Based upon both structural and functional analysis as well as problem solving and controlled composition exercises. Includes secondary dominants, chromatic approach chords and the concept of modulation. Three hours per week.

MUS 201-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 102. Corequisite Music 201. Includes melodic and rhythmic dictation, singing and memorizing various modes, scales and broken chord patterns in root position, harmonic dictation with emphasis on modulation. Two hours per week.

MUS 202. Music Theory II (3) Prerequisite: Music 201. Corequisite Music 202-51. A study of the musical process as observed in the late common practice and early twentieth century periods. The development further of the concept of modulation and chromatic harmonies and introduction to such practices as quartal and polytonal harmonies. Three hours per week.

MUS 202-51. Aural Skills and Sight-Singing (0) Prerequisite: Music 201. Corequisite: Music 202. Continuation of Music 201-51 with an emphasis on inversions and chromatically derived patterns. Utilization of quartal and polytonal harmonies. Two hours per week.

MUS 203. Composition (1 or 3) Prerequisite: Consent of instructor. A beginning study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 218. Electronic Music Composition (2) Prerequisite: Music 118. A study of basic recording and synthesizer techniques utilizing the facilities of the UNCW Electronic Music Studio. Two hours per week.

MUS 235. Jazz Improvisation (2) Prerequisite: Music 101-102 or consent of instructor. Development of materials and practices for improvisational skills in the jazz idiom. Open to any student with instrumental experience. Presentation in both lecture and performance format. Two one (1) hour meetings per week.

MUS 236. Jazz Improvisation II (2) Prerequisite: Music 235 or consent of the instructor. Materials and practices for further development of improvisational skills in the jazz idiom. Presentation in both lecture and performance format. Two one (1) hour meetings each week.

MUS 241-242. Class Piano II (1-1) Prerequisite: Music 142 or consent of instructor based on placement. Recommended for all music majors who have not passed the piano proficiency examination. Two laboratory hours each week.

MUS 243-244. Class Strings (1-1) Prerequisite: Consent of instructor. Class instruction in violin, viola, cello, or string bass. Two laboratory hours each week.

MUS 245. Woodwind Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 247. Brass Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 249. Percussion Methods (1) Prerequisite: Consent of instructor. Prior experience not required. Two laboratory hours each week.

MUS 255. Church Music Literature (3) Prerequisite: Knowledge of music fundamentals. A survey of music literature of the western church including a study of the historical function of various musical idioms and styles.

MUS 257. Service Playing (2) Prerequisite: Permission of instructor. Practical study of service playing: organ improvisations, modulations, and related problems. Two hours per week.

MUS 261, 262. Introduction to Music History I & II (3,3) A two-semester overview of music history and literature stressing the stylistic developments of music and related social and historical events. 261: Music history and literature of the Middle Ages, Renaissance, and Baroque. 262: Music history and literature of the Classic, Romantic, and Contemporary periods. Three hours per week.

MUS 271. Italian Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of Italian diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 272. English Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of English diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours per week instruction.

MUS 273. German Diction for Singers (1) Prerequisite: Music major and/or consent of instructor. Basic principles of German diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 274. French Diction for Singers (1) Prerequisite: Music major only/consent of instructor. Basic principles of French diction for singers with use of the international phonetic alphabet. Students will be coached individually and will perform in class. Two hours instruction per week.

MUS 275, 276. Keyboard Literature I & II (3,3) Prerequisite: One year private keyboard instruction at the college level. A survey of keyboard literature in relation to contemporary pedagogical use. Historical evolution of instrument design included. 275: Beginning and intermediate keyboard literature of the 18th, 19th and 20th centuries. 276: Advanced literature of the 18th, 19th and 20th centuries. Three hours per week.

MUS 285. Basic Conducting (3) Prerequisite: Music 102, 142. An examination of conducting techniques, score reading techniques and an understanding of terminology.

MUS 301. Form/Analysis (3) Prerequisite: Music 202. A study of forms common in Western music from 1600 to the present and the development of skills in analysis. Three hours each week.

MUS 302. Modal Counterpoint (2) Prerequisite: Music 301. A study of strict contrapuntal practice as observed in the church music of Palestrina, Lassus and other 16th century composers. Includes writing in 2, 3 and 4 free" voices with and without text as well as 2 & 3 part canons. Techniques of melodic and countrapuntal inversion are also covered. Two hours per week.

MUS 303. Tonal Counterpoint (2) Prerequisite: Music 301. A study of contrapuntal practice as observed in the music of J. S. Bach and other 17th and 18th century composers. Includes analysis and composition of both Invention and Fugue. Also includes contrapuntal and melodic inversion. Two hours per week.

MUS 306. Orchestration (2) Prerequisite: Music 243-244, 245, 247, and 249, or consent of instructor. Techniques of transcribing, arranging, and scoring music for various instruments and instrumental combinations. Designed for students concentrating in music. Two hours each week.

US 307. Twentieth Century Idioms (2) Prerequisite: Music 301. An indepth study of musical practice from 1900 to the present based upon both structural and functional analysis as well as problem solving and controlled compositional exercises.. Includes quartal harmonies, mixed meters, texture and timbre as musical parameters, indeterminacy and serialism. Two hours per week.

US 308. Jazz Arranging (2) Prerequisite: Music 202, 236. Arranging and scoring for the jazz combo, with emphasis on contemporary styles. Presentation in both lecture and performance format. Two hours each week.

US 325. Music Education for Elementary Teachers (3) Prerequisite: Music 105 (recommended) or Music 115. Approach to the teaching of music at the elementary level, including the use of piano laboratory. Three hours each week.

US 326. Methods of Teaching Music in the Elementary Schools (K-6) (2) Prerequisite: Consent of instructor; open only to currently enrolled music education majors. The purpose of this course is to study the scope and goals of the elementary music curriculum, the organization of musical content with regard to learning theories and developmental characteristics of the child, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on some of the innovative ideas in the field, including techniques developed by Orff and Kodaly. The course will also include an evaluation of music textbooks and materials for this level.

US 327. Methods of Teaching Music in Secondary Schools (7-12) (2) Prerequisite: Open only to currently enrolled music education majors with consent of instructor. The purpose of this course is to study the scope and goals of the secondary music curriculum, the organization of musical content with regard to learning theories and behavioral characteristics of the adolescent, and the development of evaluative procedures based on behavioral objectives. Emphasis will be placed on methods for teaching music in the classroom. The course will also include an evaluation of music textbooks and materials for this level.

US 355. Music in Religious Institutions (3) Prerequisite: Music 255. A study of the philosophic and administrative dimensions of music in religious institutions. Topics include historical antecedents and contemporary patterns.Three hours per week.

US 361, 362, 363. History of Music (2,2,2) Prerequisite: Music 261, 262 and for 362 & 363, only, Music 301. 361: Stylistic development of music of the Medieval and Renaissance eras. 362: Music history and literature of the 17th and 18th centuries. 363: Music history and literature of the 19th and 20th centuries. Two hours per week.

US 364. Contemporary Music Literature (2) Prerequisite: Music 301 and 363. A study of music from the contemporary era.

US 365. Modern Jazz (3) Prerequisite: Music 116, 236. Study of jazz music and the musicians from 1940 to the present. Presentation in both lecture and performance format. Three hours each week.

US 371. Instrumental Pedagogy and Literature (2) Prerequisite: Two years of college instrumental applied music. Problems, materials, and methods in teaching instruments to private students. Two hours per week.

MUS 372. Jazz Pedagogy (2) Prerequisite: Music 235, 285. Techniques and methods for teaching jazz, emphasizing rehearsal techniques for jazz ensembles. Lecture format plus practical conducting experience with one of the university's jazz ensembles. Two hours each week.

MUS 373. Instrumental Methods (2) Prerequisite: Consent of instructor; Music 285, 243, 245, 247, 249. Methods of teaching instrumental classes and ensembles from elementary through senior high school. Includes repertoire, marching band techniques, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship, and practical aspects of teaching instrumental music.

MUS 375. Piano Pedagogy I (3) Prerequisite: Two years private piano instruction at college level. Problems, materials, and methods in teaching beginning piano to children.

MUS 376. Piano Pedagogy II (3) Prerequisite: Two years private piano instruction at college level. Problems, materials, and methods in teaching piano to older students of high school and early college age.

MUS 377. Choral Methods (2) Prerequisite: Consent of instructor; Music 285. Methods of teaching choral ensembles from elementary through senior high school. Includes repertoire, history, the designing of a total program, rehearsal techniques, techniques of developing musicianship and the practical aspects of teaching choral music.

MUS 379. Vocal Pedagogy and Literature (2) Prerequisite: Two years of college vocal study. Basic procedures of teaching voice. Materials for solo voice studied and performed. Two hours each week.

MUS 393. Junior Recital (1) Prerequisite: Consent of faculty. A performance of at least 20 minutes of repertoire selected from the appropriate levels of difficulty. May be repeated once for credit.

MUS 395. Upper Level Applied Music, Private Lessons (1) Prerequisite: Consent of instructor. One half hour lesson per week. Requires a minimum of five practice hours per week. Accumulative credit.

Piano	Saxophone
Organ	Bassoon
Voice	French Horn
Violin	Trumpet
Viola	Trombone
Cell	Baritone Horn
String Bass	Tuba
Flute and Piccolo	Percussion
Oboe	Classical Guitar
Clarinet	Harpsichord

MUS 396. Upper Level Applied Music, Private Lessons (2) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 10 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 397. Upper Level Applied Music, Private Lessons (3) Prerequisite: Consent of instructor. One hour lesson per week. Requires a minimum of 15 practice hours per week. Accumulative credit. (Instruments as indicated in MUS 395.)

MUS 403. Advanced Composition (3) Prerequisite: Music 203 and consent of instructor. Music majors only. Advanced study of compositional techniques through direct application in original compositions. One hour seminar each week plus private instruction. Accumulative credit.

MUS 475. Practicum in Applied Teaching (1) Prerequisite: Music 371, or 375-376, or 379. Students will develop and implement a private studio under the guidance of a faculty member. One hour per week.

MUS 485. Advanced Conducting (2) Prerequisite: Music 285. Study in either choral or instrumental techniques. This course enables the student to work with the appropriate ensemble using selected literature, i.e., orchestral, wind ensemble or vocal literature, for the various mediums.

MUS 490. Thesis (1) A research thesis in a subject to be determined in consultation with the music faculty during the semester preceding the taking of this course.

MUS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MUS 493. Senior Recital (1) Prerequisite: Consent of the music faculty. A performance of at least 40 minutes of repertoire selected from the appropriate levels of difficulty. May be repeated once for credit.

MUS 495. Seminar in Music (1-3) Prerequisite: Junior standing. Consideration of special subjects not covered in detail in regular course offerings. More than one topic may be taken for credit.

MUS 499. Honors Work in Music (2-3) Prerequisite: Eligibility for honors program, and junior or senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

SPEECH COMMUNICATION

Mr. Harrington, Dr. Noor Al-Deen, Dr. Rohler, Dr. Tallant, Mr. Trimble, Dr. Weiss.

Requirements for a concentration in Speech Communication for the B.A. degree: Communication 105, 221, 230, 275, 327, 340, 341; Anthropology 208; English 320; Philosophy and Religion 110; Psychology 311; and six hours of Modern Language or Computer Science Language. The collateral area (18 hours) will be determined individually in consultation with the advisor. A grade of C" or better on all required courses in the concentration.

Speech Communication Course Descriptions

(Department of Creative Arts)

COM 105. Fundamentals of Speech (3) Principles and basic skills in speaking and listening; classroom exercise and discussion. Three hours each week.

COM 116. Oral Interpretation of Literature (3) The study and analysis of literature through the medium of oral performance. Three hours each week.

COM 170. Intercollegiate Forensics (1) One hour of academic credit each semester (up to eight hours total) for participation in debate and/or individual speaking events on the Intercollegiate Forensics Team. One hour each weeek.

COM 210. Oral Interpretation of Children's Literature (3) Focuses on several methods of performance of children's literature. Storytelling, solo performance and group performance will be covered. Areas of emphasis will be selection of suitable material, cutting of the material and techniques of performance. Three hours each week.

COM 220. Interpersonal Communication (3) This course focuses upon the communication process in face-to-face situations. It is designed to improve the everyday communication skills of the student through a greater understanding of the interpersonal process. Emphasis is placed upon the development of interviewing techniques, information acquisition and persuasive dialogues. Three hours each week.

COM 221. Group Discussion (3) Prerequisite: Communication 105 or consent of instructor. The study of and practice in oral group methodologies, including panel, forum and symposium speaking. Three hours each week.

COM 230. Voice and Diction (3) Principles and use of the voice exercises in vocal variety, articulation and pronunciation. Three hours each week.

COM 265. Survey of Mass Communications (3) An examination of U.S. radio, television, newspaper, magazines and film. Emphasis on their development, functions, theoretical foundations, present uses, and effects. Special project required. Three hours each week.

COM 268. Broadcast Journalism (3) Prerequisite: English 102. Principles and basic skills in writing for the broadcast media; includes exercises inside and outside of classroom. Emphasis on broadcast news writing, news coverage, news editing, and news problems and potentials. Three hours each week.

COM 270. Parliamentary Procedure (1) Principles and rules governing deliberative assemblies. One hour each week.

COM 275. The Art of Persuasive Speech (3) Prerequisite: Communication 105 or consent of instructor. Power of speech as a tool to control thought processes of others in both negative and positive ways. Three hours each week.

COM 276. Debate (3) Prerequisite: Communication 105, 170, or consent of instructor. Principles of argumentation and style in their application to formal debate; practice in conventional debate form on current national intercollegiate debate resolution. Three hours each week.

COM 290. Rhetoric of Popular Culture (3) Analysis will focus upon an understanding of the various persuasive influences inherent in modern society. Areas of emphasis will include analysis of persuasive appeals in advertising, music, art, movies, theatre, social movements, politics, literature, and sports. Three hours each week.

COM 316. Advanced Oral Interpretation (3) Prerequisite: Communication 116 or by consent of the instructor. Survey of interpretation history and theory; performance emphasis on such advanced projects as program creation, book reviewing and adapting prose and poetry. Three hours each week.

OM 325. Business and Professional Speaking (3) Prerequisite: Communication 105. Public speaking skills in directed experiences especially related to speech communication tasks which accompany the role of a business or professional person. Topics include the delivery of briefings, manuscript speeches, conferences, interviewing, salesmanship, use of electronic extenders and visual aids. Three hours each week.

OM 327. Organizational Communication (3) Prerequisite: Communication 105. The study of communication in organizations; theories of communication and their applications to organizations. Three hours each week.

OM 340. Communication Theory (3) Prerequisite: Communication 105 or consent of instructor. The course explores theoretical perspectives concerning how and why people communicate. Emphasisis placed on a greater understanding of the human communication process. Three hours each week.

OM 341. Rhetorical Theory (3) Prerequisites: Communication 105, Communication 340 or consent of the instructor. Introduction to the basic classical and contemporary theories of rhetoric from Plato through the present. Three hourse each week.

OM 345. Speech Writing (3). Prerequisite: Communication 105, English 102. The theory and practice of speech writing with special emphasis on writing speeches for others.

OM 365. The Broadcast Regulatory Process (3) Prerequisite: Communications 265, 268, or consent of instructor. Survey of broadcast history, law, politics, and regulation with emphasis on the roles of the Federal Communications Commission, the White House, Congress, courts, citizen's groups, and the broadcast industry itself in creating and enforcing broadcast regulations.

OM 390. Intercultural Communication (3) Prerequisite: Communication 105, Communication 220 or consent of instructor. Communication factors unique to interactions between members of different cultures, appropriate rhetorical and practical knowledge about the intercultural communication process, as well as an understanding of international communication. Three hours each week.

OM 415. Readers Theatre (3) Prerequisite: Communication 116. The application of oral interpretation techniques to group readings. Students will be involved in both technical and performance aspects of production. Three hours each week.

OM 421. Communication for Public Relations (3) Prerequisite: Any one of the following: Communication 265, 268, 275, 327, 340, 365, 465 or English 202. Principles of public relations, with special emphasis on those theories and skills relevant to the communication functions of businesses and non-profit organizations. Three hours each week.

OM 450. History of Rhetoric and Public Address (3) A survey of the development of rhetorical principles and style as evidenced by significant historical personalities and the literary genre of public address. Three hours each week.

OM 465. Mass Communications in Society (3) Prerequisite: Communication 265. A seminar encompassing the development of mass communications, the obligations of the press, radio and television, the government and the right to know, censorship, invasion of privacy and other effects of mass communications. Three hours each week.

COM 467. Broadcast Advertising and Audience Analysis (3) Prerequisite: Communication 265 or consent of instructor. Broadcast advertising and audiences from a theoretical and practical perspective. Mass communication theories applied in a practical setting as students conduct a major audience analysis for a mass media organization. Includes analysis and use of survey/research methodology.

COM 485. Senior Project (3)

COM 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the department chairman.

COM 495. Seminar in Speech Communication (3) Prerequisite: Senior standing and consent of instructor. Special topics in communication which are not dealt with in other courses.

COM 498. Internship in Speech Communication (3-6) Prerequisite: Permission of Speech Communication faculty and senior status. A program of work and study conducted within an agency and/or setting which provides practical experience with observation of applications of theoretical concepts in Speech Communication. Open to qualified students with permission of the Speech Communication faculty.

COM 499. Honors Work in Communication (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

CRIMINAL JUSTICE

(See Sociology and Anthropology)

DRAMA

(See Creative Arts)

EARTH SCIENCES

Dr. Zullo, *Chairman.* Dr. Ainsley, Dr. Cleary, Dr. Dockal, Dr. Hall, Dr. Harris, Dr. Huntsman, Dr. Kiefer, Dr. Laws, Dr. Metzger, Dr. Randall, Dr. Spyrou, Dr. Thayer.

The Department of Earth Sciences offers concentrations in Geography and Geology which prepare the student for advanced studies or for teaching, research and technical careers available to one who holds the baccalaureate degree.

Requirements for a concentration in Geography for the B.A. degree: Core requirements: Geography 110, 130, 140, 220, 270, 320, 325, 429, 495. Collateral requirements are Computer Science 121 and Statistics 205 or 215. In addition there are two options, described below, one of which a student must elect in order to complete the degree requirements. A "C" (2.0) or better average on all courses taken within the department.

Option 1.

This option provides a broad, flexible program to meet personal educational goals and interests including careers and graduate study in geography.

(a) Physical Geography: 7 hours selected from Geography 230, 332, 333, or 335.
(b) Economic and Urban Geography: 6 hours selected from Geography 312, 315 and 317.
(c) Applied Geography and Planning: 6 hours selected from Geography 322, 372, 375 and 378.

(d) Cultural Geography: 9 hours, including 3 hours in regional geography, selected from Geography 240, 255, 282, 350, 352, 382, and 385.

)ption 2.

This option is designed specifically for students interested in pursuing careers and/or raduate study in planning and applied geography.

(a) Geography 312, 317, 333 and 335.
(b) Geography 496 or 498 and 6 hours selected from Geography 372, 375, 378.
(c) 6 hours selected from Geography 322, 350, 382, Economics 105, Political Science 207, 308, and Sociology 315, 385.

Geography Course Descriptions

(Department of Earth Sciences)

GGY 110. Economic Geography (3) Human economic activities, their location and relationships to physical and economic conditions of the environment. Three hours each week.

GGY 130. Introduction to Physical Geography (4) Maps and map projections and their uses: analysis of the spatial distribution and character of environmental elements, including climate, land forms, vegetation, and soils. Three lecture and two laboratory hours each week.

GGY 140. Introduction to Human Geography (3) Concepts and methods of human geography with emphasis on current problems related to the spatial distribution of population. Three hours each week.

GGY 220. Map Reading and Interpretation (3) Introduction to the fundamentals of using and understanding maps. Examination of location, scale, map projections, elevation and relief. Recognition of map symbols, shapes and patterns in the natural and cultural landscapes as represented on topographic maps. Interpretation of thematic maps and an understanding of computer aided mapping and geographic information systems. Two lectures and two laboratory hours each week.

GGY 230. Introduction to Weather and Climate (3) Examination of general climatic characteristics through space and time, especially as influenced by controls upon temperature, wind and moisture distributions, and by planetary, regional and local atmospheric disturbances. Three hours each week.

GGY 240. Population Geography (3) Prerequisite: Geography 140 or consent of instructor. A study of the spatial dimensions of population growth, density and movement and of the shifts in these patterns as they relate to changes in selected socio-economic and cultural phenomena. Three hours each week.

GGY 255. Historical Geography of the Middle East (3) Geographical, archaeological, historical and geological investigation of the physical environment and cultural landscapes that provided the settings for the evolution of the population, economics and cultures of Southwestern Asia. Three hours each week.

GGY 270. Principles of Land Use Planning (3) Prerequisite: Geography 130 and 140 or consent of instructor. Introduction to planning techniques and to planning as a profession. Classification and analysis of spatial variations in land use patterns and development processes as they relate to the physical environment and human activities. Three hours each week.

GGY 282. Geography of North Carolina (3) Prerequisite: Geography 140 or consent of instructor. A survey of the physical and cultural landscapes of North Carolina with the emphasis on an understanding of the complex geographical variety that exists within a dynamic and growing southern state. Three hours each week.

GGY 312. Geography of Transportation (3) Prerequisite: Geography 110 or consent of instructor. Study of the structural elements of transportation systems and the spatial processes associated with their development. Three hours each week.

GGY 315. Industrial Geography (3) Prerequisite: Geography 110 or credit in economics or consent of instructor. Factors underlying the distribution, development and character of manufacturing activities and industrial regions. Emphasis is placed upon location theory. Three hours each week.

GGY 317. Urban Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Analysis of the spatial distribution, growth, function and structure of urban places with emphasis on urban development and problems in the United States. Three hours each week.

GGY 320. Elementary Cartography (3) Prerequisite: Geography 220. Techniques of drafting, map projection, and map designs; methods of data representations on maps. One lecture and four laboratory hours each week.

GGY 322. Aerial Photography and Remote Sensing (3) Prerequisite: Geography 130, 220 or Geology 101. Introduction to the use of aerial photography and other remote sensing techniques to analyze topography, geology, vegetation and culture. Two lecture and three laboratory hours each week.

GGY 325. Quantitative Methods in Earth Sciences (3) Prerequisite: Statistics 215. Use and interpretation of statistical techniques in geographic and geologic research. The course emphasizes problem identification, data collection and interpretation through assignments covering specific kinds of statistical methods. Three lecture hours each week.

GGY 332. Soils and Vegetation Geography (3) Prerequisite: Geography 130. Global distribution of soils; soil-forming processes; principles underlying the distribution of plants in their terrestrial environments; methodology of vegetation sampling; introduction to principal field techniques and evaluation; description of modern global vegetation biomes and their development by physiographic, pedogenic, climatic, and evolutionary events of the past. Three hours each week.

GGY 333. Applied Climatology (4) Prerequisite: Geography 130 or 230 or consent of instructor. The spatial distribution and character of climates, their relation to other elements of the environment and to human activities. Three lecture and two laboratory hours each week.

GGY 335. Introduction to Geomorphology (4) Prerequisite: Geography 130 or Geology 101 or consent of instructor. Description and classification of land forms; analysis of the geologic, climatic and biologic factors involved in their formation; survey of geomorphic provinces of the United States. Three lecture and two laboratory hours each week.

GGY 350. Political Geography (3) Prerequisite: Credit in a social science or in history or consent of instructor. Geographic factors in the development of nations and in contemporary national and international affairs. Three hours each week.

GGY 352. Historical Geography of the United States (3) Prerequisite: History 201 or Geography 140 or consent of instructor. A study of the evolution of the cultural landscapes and the spatial patterns of the area that is now the United States. Examination of past geographies and of geographical change through time. Three hours each week.

GGY 372. Community and Regional Land Use Planning (3) Prerequisite: Geography 270. Application of planning techniques to current urban and regional land use problems. Topics include spatial structure of cities and regions and emphasis is placed upon the visual-spatial qualities of communities and regions. Three hours each week.

GGY 375. Rural Land Use Planning (3) Prerequisite: Geography 270. Concepts of planning applied to the protection of open space in the face of increasing development demands and pressures. Topics include farmland retention, landscape assessment, land trusts, preservation and scenic easements, zoning techniques and land use plans. Three hours each week.

GGY 378. (History 378) Historic Preservation Planning (3) Prerequisite: Geography 270, or 352 or consent of instructor. An applied research course which deals with the procedures employed by federal, state and local agencies in locating, recording, restoring and preserving American architectural resources and material cultural heritage. Subjects examined include survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles. Three hours each week.

GGY 382. Regional Geography of the United States (3) Prerequisite: Geography 140 or History 202 or consent of instructor. A regional analysis of physical characteristics, resource base and human geography of the United States. Three hours each week.

GGY 385. Regional Geography of Europe (3) Prerequisite: Geography 140 or History 102 or consent of instructor. A regional analysis of the physical and cultural features of Europe. Three hours each week.

GGY 429. History and Philosophy of Geography (3) Prerequisite: Senior standing in geography. Development of geographic thought and comparative evaluation of current philosophies concerning the nature of geography. Three hours each week.

GGY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GGY 495. Senior Seminar (1-3) Prerequisite: Senior standing in geography. May be repeated one time for credit. One to three hours each week.

GGY 496. Senior Thesis (2-2) Prerequisite: Senior standing in geography. A supervised senior thesis on a topic selected by the student, thesis advisor, and thesis committee. A written thesis, completed during a two semester period, and an oral defense are required.

GGY 498. Internship (3) Prerequisite: Senior standing in geography, recommendation of advisor and consent of the geography faculty. The student works a minimum of twelve hours per week for an outside agency or individual in a position that enables the student to utilize academic training in a practical field experience. A summary paper and an oral presentation before the geography faculty are required.

GGY 499. Honors Work in Geography (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

Requirements for a concentration in Geology for the B.A. degree: Geology 101, 102, 190, 201, 210, 231, 331, 341, Geography 335, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101 or (105, 106)-102. Mathematics 111-112 or 115, and a minimum of 7 hours selected from Biology, Chemistry, Computer Science, Geology, Geography, Mathematics or Physics. A C" (2.0) or better average on all courses taken within the department and a C" (2.0) or better average on all required courses above the 100 level in the department.

Requirements for a concentration in Geology for the B.S. degree: Geology 101, 102, 190, 201, 202, 231, 311, 312, 331, 341, and Geology 495. Collateral requirements are Chemistry (lecture and laboratory) 101-102, Mathematics 161-162, Physics 201-202, and a summer field course in geology offered by another institution. Students wishing to pursue a program emphasizing paleontology may substitute specific courses in biology for the physics requirement with approval of the department. A "C" (2.0) or better average on all courses taken within the department and a C" (2.0) or better average on all required courses above the 100 level in the department. Students planning to attend graduate school are urged to take Computer Science 111, and French 101-102 or German 101-102.

Geology Course Descriptions

(Department of Earth Sciences)

GLY 101. Physical Geology (4) Study of the earth and the moon; constitution of the earth's crust; weathering, erosional and depositional processes; mountain building forces and the earth's internal composition. Field trips. Three lecture and three laboratory hours each week.

GLY 102. Historical Geology (4) Prerequisite: Geology 101. Geologic history of the earth; methods of interpreting the past; ancient environments; development and evolution of life. Required field trips. Three lecture and three laboratory hours each week.

GLY 120. (Environmental Studies 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

GLY 131. Dinosaurs (2) Study of the Dinosaurs and other Mesozoic vertebrates as illustrations of the basic principles of vertebrate paleontology. Emphasis is placed on identification, systematics, evolution, ecology and extinction of the Dinosaurs. Two hours each week.

GLY 150. Introduction to Oceanography (3) An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean. Required field trips. Three hours each week.

GLY 190. Methods in Geology (3) Prerequisite: Geology 101 and Geology 102. Introduction to various bibliographic, graphic, field, and laboratory methods essential to geologic studies. Weekly projects and required field trips. Three hours each week.

GLY 201. Mineralogy (4) Prerequisite: Geology 101; corequisite: Chemistry 101, including laboratory. Principles of chemical bonding in natural solids; crystal chemistry; physical conditions of mineral genesis; geologically significant mineral associations; crystallography; mineral identification. Required field trips. Three lecture and three laboratory hours each week. Fall.

GLY 202. Advanced Mineralogy (3) Prerequisite: Geology 201. The technique of mineral identification and analysis. Theory and application of the polarizing microscope and X-ray diffractometer. Introduction to the principles of the electron microprobe, X-ray fluorescence and atomic absorption. One lecture and four laboratory hours each week.

GLY 210. General Petrology (4) Prerequisite: Geology 201 or consent of instructor. A survey of the major igneous, sedimentary, and metamorphic rock groups. Emphasis is on classification, textural features, mode of occurrence, environments of origin and economic importance. Laboratory stresses rock identification and typical rock associations. Required field trips. Three lecture and three laboratory hours each week.

GLY 231. Invertebrate Paleontology (4) Prerequisite: Geology 102 or consent of instructor. History of fossil protistans and invertebrates with emphasis on the principles of paleontology, systematics and evolution, and on the use of fossils in stratigraphic correlation. Required field trips. Three lecture and three laboratory hours each week.

GLY 311. Igneous and Metamorphic Petrology (4) Prerequisite: Geology 202. Theories of genesis of the major igneous and metamorphic rocks in the light of chemistry, mineralogy, structure and texture, field associations, and experimental data. The relationship between igneous and metamorphic processes and crust-mantle tectonic activity. Required field trips. Three lecture and three laboratory hours each week.

GLY 312. Sedimentary Petrology (4) Prerequisite: Geology 202. Introduction to the identification, classification and origins of sediments and sedimentary rocks. Emphasis is placed on physical processes controlling sedimentation and study of modern and ancient depositional environments. Field trips. Three lecture and three laboratory hours each week.

GLY 331. Stratigraphy (3) Prerequisite: Geology 231. An introduction to the description, organization and classification of layered rocks. Emphasis is placed on the practical use of stratigraphic principles in elucidating earth history. Field trips. Two lecture and three laboratory hours each week.

GLY 341. Structural Geology (4) Prerequisite: Geology 201 and Mathematics 112 or 115. Introduction to the mechanics, fabrics, and geometry of rock deformation, including stress-strain relationships, folds and folding, and faulting and fracturing of rocks. Selected regional examples introduce and test concepts and theories of orogenic rock mechanisms and tectonics. Required field trip. Three lecture and three laboratory hours each week.

GLY 391. Appalachian Geology (1) Corequisite: Geology 331 or 341. Field study of the structure, stratigraphy, rocks, and paleontology of the Paleozoic System of the Appalachian geosyncline. Introduction to sample collection, field mapping procedures, and methods of data analysis. Three field days and colloquium. Spring. (Fees)

GLY 392. Coastal Plain Geology (1) Corequisite: Geology 331. Field analysis of depositional patterns and paleontology of Cretaceous and Cenozoic units of the southeastern Atlantic Coastal Plain. Introduction to methods of litho- and biostratigraphic correlation, sampling techniques, and sample analysis. Three field days and colloquium. Fall. (Fees)

GLY 393. Coastal Processes (1) Prerequisite: Geology 101. Field examination of the depositional and erosional processes and materials in the marshes, estuaries and barrier islands of the Carolinas and Georgia. Introduction to the basic techniques used by coastal researchers in field measurements, sample retrieval and data analysis. Three field days and colloquium. Spring. (Fees)

GLY 394. Piedmont Geology (1) Prerequisite: Geology 102. Corequisite: Geology 201 or 341, or consent of instructor. Field examination of the petrology, degree(s) of metamorphism, and structural style(s) of the various belts of rock in the crystalline Appalachians. Observations permit regional tectonic syntheses for the Piedmont. Three field days and colloquium. Fall. (Fees)

GLY 480. Advanced Topics in Geology (1-3) Prerequisite: Junior standing in department and consent of instructor. Study of selected topics in geology that are not considered in detail in regular course offerings. Examples of specific topics are plate tectonics, seismology, depositional systems, groundwater hydrology, geochronology, and advanced paleontology. Taught on demand. More than one topic may be taken for credit (maximum 6 hours).

GLY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

GLY 495. Senior Seminar (1-3) Prerequisite: Senior standing with a concentration in Geology or consent of instructor. May be repeated one time for credit. One to three hours per week.

GLY 499. Honors Work in Geology (2-3) Prerequisite: Eligibility for honors program and recommendation of department chairman. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

ENGINEERING

(See Pre-Professional Programs for Requirements)

Engineering Course Descriptions

(Department of Earth Sciences)

EGN 111. Engineering Graphics (3) Fundamentals of drafting and use of instruments, lettering, geometric constructions, orthographic projection, auxiliaries, sections, fasteners, dimensioning, freehand sketching; axonometric, oblique, and perspective views and fundamentals of working drawings. Basic construction and topographic

drafting, inking, methods of reproduction; descriptive geometry, graphical solution of spatial point, line and plane problems. One lecture and three laboratory hours each week.

EGN 211. Land Surveying (3) Prerequisite: Mathematics 111 or consent of instructor. The elements of plane surveying; basic instrument nomenclature, use and adjustment, methods of surveying plots of land using thhe metes and bounds system; and introduction to the public land surveys; methods of basic surveying computation involving horizontal, vertical and angular measurements; legal aspects of surveying (legal term definitions, recording processes, federal, state and local laws and codes); basic methods of subdivision. Two hours of lecture and three hours of laboratory each week.

EGN 212. Route Surveying (3) Prerequisite: Engineering 211 or consent of instructor. The elements of plane route surveying to include the operations involved in horizontally and vertically aligning roadways (highways and railroads) and the computations involved in the various operations; horizontal and vertical curves; procedures peculiar to roads, canals, transmission lines, pipelines, storm and sanitary sewers, urban utility surveys, along with the incidental storm drainage design and layout for certain roadway situations. Two hours of lecture and three hours of laboratory each week.

EGN 221. Geodetic Surveying (3) Prerequisite: Engineering 211. The application of many of the principles of geodesy for the purpose of transitioning from surveys on a plane to surveys on an oblate spheroid (Earth). The use of spherical trigonometry and some of the calculus in geodetic surveys; the N.C. State Plane Coordinate System; some experience in electronic distance measuring; methods of computation and field methods of triangulation, trilateration and traverse; astronomical observations and computations involved to determine latitude, longitude and azimuth (direction) from one point to another. Two hours of lecture and three hours of laboratory each week.

EGN 222. Topographic Surveying and Mapping (3) Prerequisite: Engineering 211. The field and office processes necessary to prepare topographic and hydrographic maps of a specified area. The many methods of data acquisition over land and water areas are examined and practiced during the course to include: radial line surveys, x.y.z. coordinate surveys, aerial surveys and the plane table. The actual preparation of a "live" map from field survey to finished inked map is a primary part of the course. Two hours of lecture and three hours of laboratory each week.

EGN 321. Engineering Statics (3) Prerequisite: Physics 201 and corequisite: Mathematics 162. The study of engineering statics using vector calculus. Basic concepts, forces and equilibrium analysis, distributed forces, centroids, moments of inertia, virtual work, applications to machines, structures, and systems. Three hours each week.

EGN 322. Engineering Dynamics (3) Prerequisite: Engineering 321 and corequisite: Mathematics 213. The study of engineering dynamics using vector calculus. Equations of motion, kinematics, kinetics of mass points and systems of mass points, kinetics and kinematics of rigid bodies. Three hours each week.

ENGLISH

Dr. Byington, *Chairman.* Ms. Axley, Dr. Clifford, Dr. Collier, Dr. Corbett, Dr. Dodson, Dr. Ellis, Mr. Evans, Mr. Fort, Dr. Gould, Ms. Huntley, Ms. Jones, Ms. McDonald, Dr. MacLennan, Dr. Noland, Dr. Parish, Mrs. Pearsall, Dr. Rosselot, Dr. Schweninger, Dr. D. Seiple, Dr. J. Seiple, Mr. Sher, Dr. Stokes, Dr. Sullivan, Dr. Veit, Dr. Walker, Mrs. Wasson, Dr. Waxman, Dr. Wentworth, Mr. Zinkus.

The department of English offers a basic preparation in literature, language, and composition, and then special concentrations in Literature and Language, Professional and Creative Writing, and Teacher Preparation.

Core requirements for a concentration in English for the B.A. degree: English 211-212, 223-224, 306, 320 or 323 and an additional writing course. Students with an emphasis in Literature and Language are required to take an additional 15 hours in literature and language courses, including one senior seminar, English 332 or 333, and three elective hours, (no more than 6 of the 21 hours may be at the 200 level). Students with an emphasis in Professional and Creative Writing are required to take an additional 12 hours in writing courses (no more than 6 hours at the 200 level), 6 hours in literature courses, including one senior seminar, and 3 hours in a language or additional writing course.

Requirements for a concentration in English for the B.A. degree with Teacher Certification:
The Core requirements plus English 225 **or** 226, 304, 321, 380 or 381, 382, 495 (Seminar), and 3 elective hours (300 level or above). In the core, the additional writing course must be English 200 and the language course must be English 320. Students will be urged to choose Communication 105 **or** 116 as part of the Basic Studies requirements.
Collaterals: 18 hours in another discipline or disciplines selected by student and advisor to provide optimum reinforcement for the student's academic objectives.
A "C" or better grade must be achieved in each English course taken to satisfy requirements of the major.

English Course Descriptions

ENG 100. Foundations of Composition (0) Intensive writing practice and instruction for students needing preparation in the basics of composition. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

ENG 101. Composition (3) Prerequisite: Evidence of competence on the English Placement Test or a grade of "C" in English 100. An introduction to college-level composition. Extensive practice in the techniques of invention, development, organization, editing, and revision, with emphasis on narrative, descriptive, and expository forms appropriate to everyday personal, business, and academic writing. Three hours each week.

ENG 102. Composition (3) Prerequisite: English 101. College-level composition. Continued practice in the composing process, with emphasis on argumentation and research. Frequent projects in gathering, analyzing, and documenting information from outside sources. Three hours each week.

ENG 110. Introduction to Literature (3) Study of three literary genres—poetry, drama, and short fiction—in terms of basic components and structures. Three hours each week.

ENG 200. Foundations of Creative Writing (3) Prerequisite: English 102 or consent of instructor. Instruction in creative writing as a preparation for teaching on the primary or secondary levels. Includes writing exercises in three genres: poetry, fiction, and drama. Intended primarily for prospective teachers. Three hours each week.

ENG 201. Intermediate College Writing (3) Prerequisite: English 102. Instruction in composing strategies to strengthen organizational, syntactical, and editing skills. Written projects relate to the academic interests of each student. Three hours each week.

ENG 202. Introduction to Journalism (3) Prerequisite: English 102. Introduction to news writing and newspaper organization. Includes writing news stories, editorials, features, interviews, and profiles. Three hours each week.

ENG 203. Writing About Literature (3) Prerequisite or corequisite: English 102. Practice in ways to write about literature in forms ranging from personal journals to in-class responses to critical essays. Includes readings and instruction in literature. Three hours each week.

ENG 207. Creative Writing (Fiction) (3) Prerequisite: English 102 or consent of instructor. Instruction in writing fiction, including critical evaluation by instructor and class of students' orginal works. Students also critique and relate to their own work the fiction of relevant professional authors. Three hours each week.

ENG 208. Creative Writing (Poetry) (3) Prerequisite: English 102 or consent of instructor. Instruction in writing poetry, including critical evaluation by instructor and class of students' original works. Students also critique and relate to their own work the poetry of relevant professional poets. Three hours each week.

ENG 210. Mythology (3) Prerequisite: English 102. The major mythological systems of Western society—Greek, Roman, and Norse. Mythology of other parts of the world and related material are also considered. Three hours each week.

ENG 211,212. Great British Writers I & II (3,3) Prerequisite: English 102, 211: Writings before 1800; 212: Writings since 1800. Three hours each week.

ENG 219. General Fiction (3) Prerequisite: English 102. A thematic approach to fiction for students who enjoy extensive reading of current novels.

ENG 220. Introduction to the English Language (3) Prerequisite: English 102. A nontechnical introduction to the structure, history, and contemporary use of the English language. Provides a thorough background in English grammar. Three hours each week.

ENG 223,224. American Literature I & II (3,3) Prerequisite or corequisite: English 102. 223: The literature of Colonial and Early America from 1607 to 1820 and of the Romantic era (1820-1855). 224: The literature of American Realism (1855-1900) and of the Twentieth Century (1900-1960). Three hours each week.

ENG 225,226. World Literature I & II (3) Prerequisite or corequisite: English 102. Representative works of world literature (excluding British and American authors) emphasizing, but not limited to, the western literary tradition. English 225: Works from ancient times to about 1500; English 226: 1500 to the twentieth century. Three hours each week.

ENG 230. Women in Literature (3) Prerequisite or corerequisite: English 102. Twentieth-century literature by and about women. Focus on changes in images and roles of women. Includes fiction, poetry, and essays. Three hours each week.

ENG 232. Black American Writers (3) Prerequisite or corequisite: English 102. Study of representative literature written by Black American writers from slavery to the present, including writers such as Wheatly, Douglass, Hughes, Wright, Ellison and Alice Walker. Three hours each week.

ENG 233. The Bible as Literature (3) Prerequisite or corequisite: English 102. Study of types of Biblical literature, including narratives from the Old and New Testament, sermons, parables, and poetry. Attention is given to the Bible as literature in itself and as a source of symbols in allusions from Western culture. Three hours each week.

ENG 235. Literature and Film (3) Prerequisite or corequisite: English 102. Study of selected literary works that have been transformed into films. Consideration is given to each work in its original literary form as well as to the changes it has undergone in cinematic adaptation. Works treated may vary from semester to semester. Three hours each week.

ENG 240. The Supernatural in Literature (3) Prerequisite or corequisite: English 102. Types of supernatural phenomena in literature, including psychic experiences, the occult, ghosts, werewolves, and vampires. Emphasis on British and American fiction of the nineteenth and twentieth centuries, from Mary Shelley to Stephen King.

ENG 241. Detective Fiction (3) Prerequisite or corequisite: English 102. Major writers of detective fiction from Poe to the present. Development of the mystery form and the evolution of the detective as hero in British and American literature. Three hours each week.

ENG 242. Science Fiction (3) Prerequisite or corequisite: English 102. Study of special conventions that distinguish science fiction from other types of literature (such as fantasy). Considers the contribution of science fiction to the understanding of such current concerns as overpopulation, biological change, automation, and the threat of nuclear war. Works by such authors as Wells, Asimov, Heinlein, Clarke, Bester and LeGuin. Three hours each week.

ENG 243. Fantasy Literature (3) Prerequisite or corequisite: English 102. Study of nonrational phenomena in literature and of the relationship of fantasy to reality. Considers phenomena such as magic and otherworldly creatures in settings that distinguish fantasy from other types of literature, such as science fiction. Three hours each week.

ENG 244. Literature of the Sea (3) Prerequisite or corequisite: English 102. Study of nautical literature, focusing on varying perceptions of the sea; major themes in nautical literature; uses of the sea as setting, symbol and metaphor. Three hours each week.

ENG 250. Introduction to Folklore (3) Prerequisite or corequisite: English 102. A definition and survey of the most common forms of folklore, including folk speech, narratives, music, art, customs and beliefs, with an emphasis upon the relevance of these materials to the study of literature, history, education, art, the social sciences and other disciplines. Three hours each week.

ENG 290. Themes in Literature (3) Prerequisite or corequisite: English 102. An interdisciplinary study of a significant theme, such as war and peace, justice, love, youth and age, focusing primarily on literary works but also drawing on sources from other fields, including art, music and history. May be repeated once under a different subtitle. Three hours each week.

ENG 300. Introduction to Technical Writing (3) Prerequisite: English 102. Types of writing encountered in professions: resumes, memos, correspondence, proposals, progress reports, technical reports, and oral presentations of technical reports; emphasis on style, form, and organization; adaptable to the student's major field of study. Three hours each week.

ENG 301. Technical Report Writing (3) Prerequisite: English 300 or consent of instructor. Theory and practice of technical writing; emphasis on mid-sized and longer reports, including proposals and feasibility studies, journal articles, professional papers and research studies, and oral presentation of technical reports; adaptable to the student's major field of study. Three hours each week.

ENG 302. Journalism Workshop (3) Prerequisite: English 202 or consent of instructor. Study of advanced forms of newswriting, such as *Wall Street Journal* style, news magazine format, and "New Journalism." Techniques applied to writing and editing the weekly campus newspaper, *The Seahawk*. Three hours each week.

ENG 304. Writing for Teachers (3) Prerequisite: English 102. Instruction in writing for teachers of all school subjects (K-12). Forms of exposition and persuasion appropriate to teachers; consideration given to learning and composition theory, the composing process, theories of rhetoric, evalaution, writing development. Three hours each week.

ENG 306. Essay Writing (3) Prerequisite: English 102. Instruction in all major essay modes: narration, description, exposition, critical analysis, and persuasion. Emphasis on mastering prewriting, writing and revision strategies; attention to developing individual style. Appropriate for students in all majors. Three hours each week.

ENG 307. Advanced Creative Writing: Fiction (3) Prerequisite: English 207 or consent of instructor. Instruction in advanced techniques of writing fiction. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 308. Advanced Creative Writing: Poetry (3) Prerequisite: English 208 or consent of instructor. Instruction in advanced techniques of writing poetry. Further development of the creative process involving writing exercises, editing, and workshop discussion. Instruction in how to prepare final manuscripts for publication. Three hours each week.

ENG 310. Theory and Practice of Editing (3) Prerequisite: English 102. An advanced writing course, focusing on revising, editing and copy editing. Techniques and strategies for getting prose ready for publication will be explored. Extensive practice in editing professional and student samples. Three hours each week.

ENG 311. Professional Magazine Writing (3) Prerequisite: English 102. Writing of nonfiction prose intended for publication in magazines, newspapers and journals. Three hours each week.

ENG 315. Special Topics in Writing (3) Prerequisite: English 102. A focused study on a particular aspect in composition/rhetoric. Topics may vary from semester to semester but may include classical or medieval rhetoric; the study of style; the writing of grants; the rhetoric of visualization, art, music, or photography; or the analysis of propaganda and advertisements; theories of writing. Three hours each week.

ENG 320. Introduction to Linguistics (3) Prerequisite: English 102. Important topics in the study of language, including phonological, syntatic, and semantic systems; language change; language acquisition by children; theories of language origin; and animal "language." Three hours each week.

ENG 321. Structure of the English Language (3) Prerequisite: English 102. Study of the grammatical structure of the English language and the process by which we create and comprehend English sentences. Emphasis on recent syntactic models. Three hours each week.

ENG 322. Semantics (3) Prerequisite: English 102. The study of language as it affects our thinking and behavior; language and prejudice; the language of advertising, propaganda, science, and poetry; slanting, euphemisms, jargon, connotations, abstraction. Three hours each week.

ENG 323. History of the English Language (3) Prerequisite: English 102. The development of the English language from Old English to the present; changes in sounds, vocabulary, syntax, meaning, and spelling; formation of American dialects. Three hours each week.

ENG 332. Shakespeare I (3) Prerequisite: English 102. A study of eight to ten plays and selected sonnets (written before 1600). Included are tragedies, comedies, and histories. Three hours each week.

ENG 333. Shakespeare II (3) Prerequisite: English 102. A study of eight to ten plays written after 1600. Included are tragedies, comedies, and histories.

ENG 335. Restoration and Eighteen Century Literature (3) Prerequisite: English 102. Major writers and types of literature between 1600 and 1800. Includes works by Dryden, Swift, and Pope; as well as examples of the periodical essay, early novel, and drama. Three hours each week.

ENG 336. British Romanticism (3) Prerequisite: English 102. Selected poetry and prose of the Romantic period, 1783-1837. Emphasis on developments in poetry, in the role of the artist, and Romantic critical theory. Includes such writers as Blake, Byron, Wordsworth, Coleridge, Keats, Shelley, Austen, and Scott. Three hours each week.

ENG 337. Victorian Literature (3) Prerequisite: English 102. English literature from 1832 to 1901. Cultural upheavals as reflected in poetry and prose by such authors as Tennyson, Browning, Arnold, Pater and the Pre-Raphaelites, Dickens, Eliot, and Thackeray. Three hours each week.

ENG 338. British Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes works by British authors such as Conrad, Lawrence, Joyce, Woolf, Yeats, Shaw, and Auden. Three hours each week.

ENG 350. American Romanticism (3) Prerequisite: English 102. Major writers in the American Renaissance, from 1820 to the Civil War, including Whitman, Emerson, Thoreau, Poe, Hawthorne, and Melville. Three hours each week.

ENG 351. American Realism (3) Prerequisite: English 102. Major writers in the period of emerging industrialism and urbanization after the Civil War, including Dickinson, Twain, James, Crane, and Dreiser. Three hours each week.

ENG 352. American Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes works by American authors such as Eliot, Pound, Stevens, O'Neill, Hemingway, Fitzgerald, Porter and Faulkner. Three hours each week.

ENG 353. Southern American Literature (3) Prerequisite: English 102. A study of nineteenth and twentieth century southern literature, ranging from southwestern humor sketches written before the Civil War to recent literature by such authors as Welty, O'Connor, Faulkner, Ellison, Percy, and Williams. Three hours each week.

ENG 354. North Carolina Writers (3) Prerequisite: English 102. Short stories, novels, and poetry by North Carolina writers. Several works reflect upon the life and time of the state. Includes such writers as Charles Chesnutt, O. Henry, Thomas Wolfe, Randall Jarrell, and Gail Godwin. Three hours each week.

ENG 355. Ethnic Literature of the United States (3) Prerequisite: English 102. Literature of various American ethnic groups, with emphasis on Afro-American, Jewish-American, Native American, Hispanic-American, and Asian American literature. Three hours each week.

ENG 361. Studies in the Short Story (3) Prerequisite: English 102. Types of the short story, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 362. Studies in the Novel (3) Prerequisite: English 102. Types of the novel, with emphasis upon the features and development of the genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 364. Studies in Poetry (3) Prerequisite: English 102. Major types of poetry, with emphasis upon their form, style, and interpretation. Poems from a variety of periods, authors, and traditions. Three hours each week.

ENG 365. Studies in Drama (3) Prerequisite: English 102. A variety of plays representing tragedy, comedy, and modern forms. Works from a variety of periods, authors and traditions with some attention to dramatic criticisms. Three hours each week.

ENG 371. European Literature 1900-1950 (3) Prerequisite: English 102. Study of a broad range of writings from the first half of the 20th century. Includes continental authors such as Kafka, Hesse, Camus, Rilke, Brecht, Akhmatova, and Pasternak. Three hours each week.

ENG 372. Contemporary Literature (3) Prerequisite: English 102. Literature since 1950. Includes such movements and themes as confessional and beat poetry, theatre of the absurd, alienation, pop culture, and experimentation. Three hours each week.

ENG 373. The Female Tradition in Literature (3) Prerequisite: English 102. Study of literary works by nineteenth century women. Examines evolving women's literary criticism, and distinctly female uses of language in literature. Three hours each week.

ENG 380. Literature for Children (3) Prerequisite: English 102. Exploration of childrens' books in several genres. Intended for present and future parents and teachers of grades 4-9. Three hours each week.

ENG 381. Literature for Young Adults (3) Prerequisite: English 102. An exploration of various genres appropriate for high school students. Intended for present and future parents and teachers of adolescents. Three hours each week.

ENG 382. Varieties of Literary Response (3) Prerequisite: English 102. A range of written and oral responses to poetry, fiction, and drama. Student participation in such approaches as role-playing, collaborative problem-solving, dramatization, visualization, and parody. Three hours each week.

ENG 430. The Age of Chaucer (3) Prerequisite: English 102. A survey of works written in medieval England. Included are *The Canterbury Tales*, selections from Chaucer's other works, and representative works in such genres as chronicle, biography, epic, romance, dream vision, and drama. Three hours each week.

ENG 431. The Age of Elizabeth (3) Prerequisite: English 102. English literature in the sixteenth and early seventeenth centuries. Works studied include poetry by Spenser and Shakespeare; plays by Marlowe and Jonson; and prose by More and Sidney. Three hours each week.

ENG 432. The Age of Milton (3) Prerequisite: English 102. Emphasis on the works of Milton. Also includes works by Donne, Herbert, and Bacon. Three hours each week.

ENG 462. Studies in the Novella (3) Prerequisite: English 102. Types of the novella or short novel, with emphasis upon its distinctive features and development as a genre. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 463. Studies in Non-fiction (3) Prerequisite: English 102. Types of non-fiction prose, including biography, autobiography, memoirs, journals, and various forms of the essay. Works from a variety of periods, authors, and traditions. Three hours each week.

ENG 490. Special Topics in Literature (3) Prerequisite: English 102. The study of a selected theme, movement, period, influence, or genre. Content varies from semester to semester. May be repeated once under a different subtitle. Three hours each week.

ENG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ENG 495. Seminar (1-3) Prerequisite: Junior or senior standing or consent of the chairman. Intensive study of a topic in literature, language, or writing. Emphasis upon individualized work which may include reports, a longer research project, and appropriate bibliography assignments. Classes limited to fifteen. Required of English majors in the junior and senior year. May be repeated once under a different subtitle.

ENG 499. Honors Work in English (2-3) Prerequisite: Eligibility for honors program. Independent study for honors student.

For 292 and 492, see explanation on p. 70.

ENVIRONMENTAL STUDIES

(Interdepartmental)

Dr. Merritt, *Advisor.* Participating disciplines: Biology, Chemistry, Earth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, and Sociology.

Requirements for a concentration in Environmental Studies for the B.A. degree:

Core: (1) Environmental Studies 195, 495; Statistics 205 or 215, and Computer Science 111 or 121. (2) One course from each of four disciplines, selected from: Chemistry 235, 277; Physics 105; Biology 205, 206; Geology 101, 120; Geography 130. (3) One course from each of three disciplines, selected from: Political Science 304, 308; Anthropology 309; Psychology 370 (EVS 370); Economics 325 (EVS 325), 328.

Specialization: A disciplinary concentration requiring a minimum of 20 hours chosen from the approved list of courses in one of the following: Biology, Chemistry, Earth Sciences, Economics, Managerial Science, Marine Science, Mathematical Sciences, Physics, Political Science, Psychology, Sociology.

Approved courses for each discipline are listed below. Courses taken to fulfill core requirements may not count toward the specialization. A "C" or better average on courses taken in the area of specialization is required.

BIOLOGY: BIO 316, 335 with lab, 345 or 347 or 355, 356, 365, 366, 375, 425, 440, 465, 466, 470, 475, 480, 491.

CHEMISTRY: CHM 211-212 with labs, 235 with lab, 277, 315-316, 321 with lab or 325 with lab, 435 with lab, 445, 465, 475, 476, 485, 491.

EARTH SCIENCES: (Geology emphasis) GLY 101, 102, 120, 201, 210, 331, 341, 391. (Geography emphasis): GGY 110, 130, 140, 270, 320, 322, 325, 335, 372, 375. (Marine Science emphasis): GLY 150, 391; GGY 230, 322, 333, 335.

ECONOMICS: ECN 320 or 321, 322, 326, 324 or 327, 426, 427, 428, 495; FIN 331.

MANAGERIAL SCIENCE: BLA 361; MGT 350, 351, 356, 358; PDS 313, 314; MKT 340.

MARINE SCIENCE: GLY 150, 450; GGY 333, 432; BIO 345, 362, 365 or 481, 366, 458, 462, 468, 472; CHM 475.

MATHEMATICAL SCIENCES: MAT 161, 162, STT 262, and at least 14 additional hours chosen from STT 362 (replaces STT 205 or 215 requirement), MAT 261, 325, 335, 361, 366, 367, 435, 415, 425, 461, 462, 463, 465, 471.

PHYSICS: PHY 201-202 (corequisite MAT 151-152 or 161- 162), 225, 260, 321, 335, 455, 491 (environmental research project); PHY 170 is recommended as an elective.

POLITICAL SCIENCE: PLS 111, 210, 211, 304, 307, 308, 309, 405, 406.

PSYCHOLOGY: PSY 336, 355, 365, 370, 410, 412, 456, 457, 465.

SOCIOLOGY: ANT 205, 206, 207, 302, 304, 305, 309, 322; SOC 230, 305, 315, 316, 385.

Environmental Studies Course Descriptions

(Interdepartmental)

EVS 120. (Geology 120) Environmental Geology (3) Introduction to the relationships between man and his geologic environment. Concerned with the problems that people have in using the earth and the reaction of the earth to that use. Emphasis is placed on earth processes, earth resources, and properties of rocks and surficial deposits insofar as they are important to or affect human activities. Three hours each week.

EVS 195. Introduction to Environmental Studies (3) Interdisciplinary introduction to the scope and application of environmental studies. Emphasis will be placed on an integrated analysis of environmental principles and discussions centering on current environmental problems. Three hours each week.

EVS 316. (Sociology 316) Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on social evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and related configuration of human communities. Three hours each week.

EVS 325. (Economics 325) Environmental Economics (3) Prerequisite: Economics 125 or 221 and consent of instructor. Application of economic concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives. Three hours each week.

EVS 370. (Psychology 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior effects of noxious factors in the environment, the psychology of enviornmental design, and the formation and change of attitudes about the environment. Three hours each week.

EVS 490. Senior Project (1-6) Prerequisite: Senior standing and permission of instructor. A research project and seminar under the supervision of a committee of environmental studies faculty. The project should involve the investigation of a current problem in the Enviornmental Studies field, and the preparation of a written report on the findings.

EVS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of the Environmental Studies advisor.

EVS 495. Seminar in Environmental Studies (3) Prerequisite: Senior standing. Synthetic approach to the study of Environmental Science. Development of the "holistic" view of the environment, its interrelationship with science, technology, and society in a seminar format.

EVS 499. Honors Work in Environmental Studies (2-3) Prerequisite: Senior standing. Independent study for honors students.

For 292, and 492, see explanation on p. 70.

FRENCH

(See Modern Languages)

GEOGRAPHY

(See Earth Sciences)

GEOLOGY

(See Earth Sciences)

HEALTH, PHYSICAL EDUCATION AND RECREATION

)r. Charles Lewis, *Chairman,* Mr. D. Allen, Dr. E. Allen, Mr. Blackmore, Mr. Brooks, Mr. Chapman, Dr. D. Cockrell, Dr. Combs, Dr. D. Culkin, Mr. Ellington, Mr. Gibson, Dr. Gladwell, Mr. Guthrie, Dr. Hatcher, Dr. Hollifield, Mr. Honeycutt, Mr. Lane, Mrs. J. Lewis, Miss McDaniel, Dr. Maylath, Dr. D. Miller, Ms. Parker, Mr. Scalf, Ms. Sherman

Requirements for a concentration in Physical Education for the B.A. degree: Physical Education 200 series* (six hours from numbers 1-8 listed below and two additional hours), 216, 217, 235, 301, 315, 340, 349, 355, 360, 415, 435, 460, Sociology, 200, Health 201. Required collaterals: Physical Education 320, 386, and Education and Psychology courses required for teacher certification. A "C" or better grade in all required Physical Education, Education, and Psychology courses. Students are certified in Physical Education. Students may qualify for add-on certification in Health by completing the following additional courses: Health 105, 205, 207, 234, 304, and 305.

Students must complete 200-aquatics *or* satisfy the aquatics competency test.

Health Course Descriptions

(Department of Health, Physical Education and Recreation)

HEA 105. Individual Well-Being (3) Topical areas and issues in health explored within the physical, emotional, social, intellectual, and spiritual dimensions of personal wellness. Three hours each week.

HEA 201. First Aid, Safety, and Cardio-Pulmonary Resuscitation (2) A certification course for American Red Cross First Aid and Cardio-Pulmonary Resuscitation. The class will meet for two lecture hours and one lab hour each week.

HEA 205. Reproduction and Sexuality (3) Prerequisite: Health 105. Emphasizes the anatomy and physiology of reproduction, conception, prenatal growth and parturition; relevant issues pertaining to human sexuality, childbearing and sexual diseases. Three hours each week.

HEA 207. Nutrition (3) The main focus of this course will be the application of the principles of nutrition as related to health, various levels of wellness, and practices of health care. Emphasis on basics of sound nutrition, requirements of various food elements, diet planning, diet patterns for specific age groups, nutritional fads and weight control. Three hours each week.

HEA 234. Principles of Health Education (3) An introduction to the principles of health education planning, organization, and evaluation with emphasis on the school health program. The role of the health education will be examined with respect to health behaviors, attitudes, and problems. Three hours each week.

HEA 304. Health and Safety Education, Grades K-9 (3) The scope, development and procedures of health education as it relates to the student, health services and the healthful school environment. Emphasis upon the human sexuality and the teacher's responsibility for first aid and safety education in the school environment. Three hours each week.

HEA 305. Curriculum Methods in Health (3) The scope, development and procedures of health education as it relates to the student, health services, and the healthful school environment. Emphasis upon instructional methodology appropriate for health teaching. Includes practicum in teaching. Three hours each week.

Physical Education Course Descriptions

(Department of Health, Physical Education and Recreation)

PED 101. Foundations of Physical Activity (2) Study of immediate and long-term effects of physical activity and establishment of individualized programs for acquiring and maintaining physical fitness. One lecture and two hours of activity each week.

PED 102. Physical Education Activity (1) Prerequisite: Students planning to enroll in PED 102 sections of Aerobic Dance, Lifeguard Training, Physical Conditioning, Running Fitness, and Weight Training should consult individual instructors about prerequiste requirements. Students may accumulate up to 7 hours credit in Physical Education 102, but are limited to one hour per semester. Three hours each week.

Archery
Tennis
Golf
Bowling
Gymnastics
Weight Training
Raquetball
Swimming: Beginning, Intermediate, and Advanced
Lifesaving
Water Safety
Scuba Diving
Badminton/Tennis
Raquetball/Tennis
Raquetball/Archery
Raquetball/Handball
Aerobic Dance
Basic Canoeing
Motorboat Handling
Running Fitness
Intermediate Tennis
Dance Techniques
Exercise and Weight Control

PED 103. Physical Education Activity – Program of Outdoor Pursuits (3) Prerequisite: Physical Education 101 or equivalent. Study of and participation in the skills and knowledge of various outdoor recreational activities in a natural setting. Minimum of 10 one-hour lecture sessions and a minimum of 11 excursion days. Travel and subsistence costs for activities borne by the student. (Non-majors may repeat PED 103, in a different activity area, only once.)

PED 200. Sports Skills (1) Designed to develop the skills and knowledge of physical education majors in specific sports activities. Three hours each week for one-half semester.

1.Basketball (1)
2.Dance (1)
3.Gymnastics (1)
4.Soccer (1)
5.Softball (1)
6.Tennis (1)
7.Track and Field (1)
8.Volleyball (1)
9.Archery (1)
10.Aquatics (1)
11.Badminton (1)
12.Field Hockey (1)
13.Football (1)
14.Golf (1)
15.Outdoor Adventure Sports (1)
16.Racquetball/Handball (1)
17.Wrestling (1)
18.Aerobics (1)

PED 216. (Biology 216) Human Anatomy and Physiology I (4) The study of the human integumentary, skeletal, muscular, circulatory and respiratory systems as related to health and movement. Three lecture hours and three lab hours each week.

PED 217. (Biology 217) Human Anatomy and Physiology II (3) The study of the human nervous, urinary, endocrine, digestive, and reproductive systems as related to health and movement. Three lecture hours each week.

PED 235. History and Philosophy of Human Movement (3) Study of the discipline of human movement in ancient and modern civilizations with particular attention on philosophies influencing its historical development in Western Europe and America. Three hours each week.

PED 236. Athletic Officiating (3) Rules, officiating techniques, and problems arising in officiating with emphasis on football, basketball, baseball, volleyball, and tennis.

PED 301. Prevention, Treatment, and Rehabilitation of Athletic Injuries (3) Prerequisite: Physical Education 216. A basic course in the management of athletic injuries. Three hours each week.

PED 315. Motor Development (2) Prerequisite: Physical Edsucation 216. Analysis of the sequential progression of fundamental motor skills from infancy through adolescence. Study of physical growth patterns and biological maturity as related to motor performance. Attention also given to perceptual motor programs for children.

PED 320. Methods of Teaching Motor Activity (3) Emphasis on instructional methodology appropriate to teaching motor skills and sports activities, formulation of objectives, and lesson planning. Includes practicium in teaching. Three hours each week.

PED 335. Readings in Physical Education (3) A comprehensive review of literature in physical education and related areas. Three hours each week.

PED 336. An Approach to Coaching (3) The application of philosophical and psychological knowledge and principles to the administration and coaching of sports with special emphasis on research literature. Three hours each week.

PED 340. Kinesiology (3) Prerequisite: Physical Education 216 (Biology 216). Study of neuromuscular and mechanical principles of human motion, with emphasis on movement problems most often encountered in fitness activities and sport skills. Three hours each week.

PED 349. (Biology 349) Physiology of Exercise and Sport (4) Prerequisite: Physical Education 216 or Biology 345. A study of fundamental responses of the human body to the stress of exercise, including compensatory adjustments to long-term physical training. Three lecture and two laboratory hours each week.

PED 355. Measure and Evaluation of Human Physical Performance (3) Elementary statistical techniques used in research and interpretation of data; identification of physical fitness and movement components; evaluation of measures now available in the field and administration of performance tests. Three hours each week.

PED 360. Motor Learning (3) An introduction to the principles of motor learning, this course is concerned with the analysis and application of physiological and psychological principles related to the learning and performance of motor skills. Two lecture and one laboratory hours each week.

PED 379. Legal Liabilities in Athletics and Physical Education (3) Prerequisite: Junior or Senior level. An introduction to the legal liabilities existing in Physical Education and Athletics. Terminology, procedure, operations of the law and case studies will be studied enabling students to positively confront liability situations should they arise. Emphasis on state laws as well as national laws. Three hours each week.

PED 386. Physical Education in the Primary Grades (K-3) (3) A study of the theory, techniques and methods of developing and implementing a total program of physical education for children in grades K-3. Emphasis on the "movement approach" to learning fundamental motor skills, equipment construction, rhythms and dance, stunts and tumbling, classroom games, and other activities basic to the K-3 program. Three hours each week.

PED 387. Physical Education in the Intermediate Grades 4-6 (3) Methods and materials for developing and conducting a yearly program of physical education for children in grades 4-6. Emphasis on refinement of sports skills through lead-up games, relays and other games of low organization, including activities in gymnastics, dance and fitness development. Three hours each week.

PED 415. Movement Considerations for Special Populations (3) Prerequisite: Physical Education 216 and junior or senior standing. Problems relating to the physiological and kinesiology needs of the individual with physical limitations. Emphasis on the selection of activities that will provide opportunities for optimum development of which he or she is capable. Two lecture and two laboratory hours each week.

PED 416. Laboratory Techniques and Research Methods in Exercise Physiology (3) Prerequisite: Physical Education 349 and consent of instructor. A study of laboratory techniques and research methods used to evaluate physiological response to exercise and training. Primarily a laboratory experience. Three hours each week.

PED 420. Teaching Physical Education (2) Prerequisite: Physical Education 320. (PED 420 must be taken before Education 408 and 409). Individualized, supervised experience in teaching. Experience complemented with weekly seminar on contemporary problems.

PED 421-422-423-424-425-426. Methods of Coaching (2) Emphasis on strategy, fundamentals, techniques, training and related duties. Two hours each week.

421 Baseball	424 Track and Field
422 Basketball	425 Soccer
423 Football	426 Volleyball

PED 435. Organization and Administration of Health and Physical Education and Athletics (3) Prerequisite: Junior or senior standing or consent of instructor. Analysis of problems associated in its planning, organizing, and directing physical education and athletic programs. Three hours each week.

PED 436. Intramurals (3) Prerequisite: Junior or senior standing. The position of intramural activities in the overall program of physical education. Analysis of problems involved in the administration and organization with emphasis on the practical approach in school systems. Three hours each week.

PED 440. Selected Topics in Physical Education (3) Survey course for public school teachers with emphasis on updating traditional ideas and principles and introducing new ideas and problems in health and physical education. Three hours each week.

PED 455. Advanced Tests and Measurements in Physical Education (3) Prerequisite: Physical Education 355. Statistical techniques as applied to research in physical education; measurement and evaluation in areas of agility, balance, power, flexibility, kinesthetic perception and anthropometrics. Three hours each week.

PED 460. Sport Psychology (3) Prerequisite: Junior or senior standing within the department or consent of instructor. Study of psychological and psychosocial knowledge and principles as they relate to sport participants and the sport environment. Three hours each week.

PED 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PED 499. Honors Work in Physical Education (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Requirements for a concentration in Parks and Recreation Management for the B.A. degree:

Core Courses: Recreation 265, 266, 268, 298, 360, 365, 368, 450, 465, 469, 498.

Commercial Recreation Option: Recreation 350, 351, 366, 495. Required collaterals (13 hours): Accounting 201, 203, Business 350, Marketing 340.

Outdoor Recreation Option: Recreation 271, 366, 470. Required collaterals (12 hours): Biology 206 and two of the following: 356, 366, 456, 475.

Therapeutic Recreation Option: Recreation 369, 370, 467, 468; Physical Education 216, 349. Required collaterals (12 hours): Education 260; Psychology 347; Sociology 215; Social Work 396. A grade of "C" or better on all required Recreation and Physical Education courses.

Recreation Course Descriptions

(Department of Health, Physical Education and Recreation)

REC 265. Introduction to Recreation and Parks (3) The scope, development, structure, purposes, functions, interrelationships of public, commercial, private and voluntary agencies engaged in rendering recreation and park services. This course is a prerequisite for all other courses in recreation. Three hours each week.

REC 266. Program Planning for Recreation and Parks (3) Prerequisite: Recreation 265. An introduction to programming for recreation and parks, including the major areas of recreation, planning principles, objectives and evaluation. Program factors, such as scheduling, personnel, facilities, equipment, etc., will be considered. Three hours each week.

REC 268. Social Recreation Leadership (3) Prerequisite: Recreation 265. Leadership and planning principles as they apply to serving the recreation participant. Study of a variety of activities suitable for social gatherings; complete program of social recreation activities for various groups; practical application of leadership skills. Three hours each week.

REC 271. Camp Leadership and Management (3) Prerequisite: Recreation 265 or consent of instructor. Study of the segment of park recreation programs involved with current camp practices, philosophy, leadership and management. Three hours each week.

REC 298. Practicum in Recreation (3) Prerequisite: Recreation 265 and either Recreation 266 or 268. Supervised experience in recreation and/or park setting. Relates theory to practical applications in the field. Placements chosen from community, commercial, outdoor or therapeutic recreation settings. Three hours each week.

REC 350. Recreation and Commercial Enterprise (3) Identification, development, operation and impact of profit-oriented recreation enterprises. Investigation of feasibility studies, sources of technical assistance, financing, facility planning and development, marketing and managerial requirements. Three hours each week.

REC 351. Travel and Tourism (3) An introduction to the commercial area of the leisure field which is concerned with travel and tourism. Three hours each week.

REC 360. Outdoor Recreation (3) Prerequisite: Recreation 265. The scope, organization, and program activities using resources in large parks, forests, and primitive areas. Consideration will be given to private, local, state, and federal agencies concerned with outdoor recreation in these areas. Three hours each week.

REC 365. Administration of Recreation and Parks (3) Prerequisite: Recreation 266 and 298. Administrative practices related to recreation and parks services, including budget preparation; legal aspects of recreation and park services; fees and charges; public relations; recruiting; selecting and training personnel; personnel practices, etc. Three hours each week.

REC 366. Water-Related Recreation and Park Facilities and Programs (3) Prerequisite: Recreation 265. Water-based resources for recreation activities and programs. Emphasis on swimming pools and coastal resources management. Attention also given to reserviors/lakes, rivers/ streams, commercial amusements and decorative uses of water.

REC 367. The Arts and Recreation (3) Prerequisite: Recreation 265. Administrative problems involved in organizing quality cultural arts in recreation and parks departments and other leisure services agencies. Areas to be examined include financing, personnel, facilities, and equipment. Funding possibilities and relationships between the National Endowment for the Arts, State Arts Councils, Local Arts Councils, and Recreation and Parks Departments will also be studied. Three hours each week.

REC 368. Introduction to Therapeutic Recreation and Special Populations (3) Prerequisite: Recreation 265 or consent of instructor. The recreation and parks program for individuals and groups who are ill, handicapped, aged, or in other special groups conducted by tax-supported, voluntary, or privatee agencies found in the community, hospitals, penal institutions, or other special residences. Three hours each week.

REC 369. Therapeutic Recreation for the Aging (3) Prerequisite: Recreation 368. To acquaint the student with the special wants and needs of the elderly; to provide insight into the physical, mental, social, and emotional problems of the aged. To make the student aware of the important role recreation plays in the lives of the aged. Three hours each week.

REC 370. Adaptive Activities and Facilities for Therapeutic Recreation (3) Prerequisite: Recreation 368. To introduce the student to procedures and methods of adapting recreational facilities, programs and activities to meet the needs of the handicapped. Three hours each week.

REC 450. Conflict Resolution in Recreational Leadership (3) Prerequisite: Recreation 265. An experimental approach to the study of conflict resolution in recreation leadership and management. Three hours each week.

REC 465. Planning of Recreation and Park Areas and Facilities (3) Prerequisite: Recreation 365. Basic principles in planning, design and development of park and recreation areas and facilities. Safety, legal liability, contracting, maintenance and vandalism control are also studied. Three hours each week.

REC 467. Leisure Education in Therapeutic Recreation (3) Prerequisite: Recreation 368. An overview of the leisure education process as an aspect of therapeutic recreation service delivery. The course encompasses a review of leisure education and strategies for the development, implementation, and evaluation of leisure education programs for persons with disabilities. Three hours each week.

REC 468. Therapeutic Recreation: Program Planning and Implementation (3) Prerequisite: Recreation 368. Advanced level course in programming and program implementation for individuals who are disabled or in other special population groups. Emphasis on sources of funding, community awareness and successful programming techniques. Three hours each week.

REC 469. Research Methods and Practices in Recreation and Parks (3) Prerequisite: Recreation 365. Research techniques employed to solve problems in the recreation and parks field. Research projects, workshops and clinics relative to specific problems on an independent and group basis will be undertaken.

REC 470. Outdoor Recreation Management (3) Prerequisite: Recreation 360. Advanced level course in giving in-depth exposure to management techniques necessary for the administration of major outdoor recreation areas including national park areas, national forest preserves, state parks, county park systems, municipal park systems and commercial areas such as marinas and camp sites. Emphasis on budgeting, personnel management, facility planning and design. Three hours each week.

REC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

REC 495. Seminar in Recreation (1-3) Prerequisite: Recreation 365 or consent of instructor. Discussion of selected topics drawn from current literature. Discussions with various professionals from county, municipal, state, federal, and private recreation and park agencies.

REC 498. Parks and Recreation Internship (6) Prerequisite: Recreation 365. A progression of professional field experiences relating theory to practical experience. Work experiences involving program planning and administrative procedures in county, municipal, institutional and voluntary settings.

REC 499. Honors Work in Recreation (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

HISTORY

Dr. McLaurin, *Chairman.* Mr. W. Allen, Dr. Berkeley, Dr. Cable, Dr. Fink, Dr. Kinzer, Dr. McGuire, Dr. Schneider, Dr. Toplin, Dr. Usilton, Dr. Watson.

Requirements for a concentration in History for the B.A. degree: History 101, 102, 103, 201, 202; an additional 27 hours in history at the 300-400 level, and an overall "C" average in courses taken within the department. Students may take three hours at the 200 level in addition to History 201 and 202, and are required to take at least three hours at the 400 level, and may count no more than six hours in History 491 and 495 toward the major. Students are required to take at least one upper level course in European, United States, and Third World history (Africa, Asia, Latin American and Middle East). History 490, Senior Seminar, is required of all students. Students are also expected to complete the required lower level courses before upper level ones. Required collaterals include 21 hours selected from departmentally-approved courses in at least 4 of the following areas: English, Modern Languages, Philosophy and Religion, Anthropology, Economics, Geography, Political Science and Sociology. History majors working toward certification in Social Studies for secondary school teaching must complete a minimum of 21 hours in Anthropology, Economics, Geography, Political Science and Sociology with courses in at least 3 areas.

History Course Descriptions

HST 101, 102. Western Civilization (3,3) 101: History of Civilization to 1650. 102: History of Civilization from 1650 to the present. Three hours each week.

HST 103. Introduction to Global History (3) An introduction to the global effects of colonialism, industrialism and nationalism with special emphasis on Asia, Africa, Latin America and the Middle East since 1500.

HST 201, 202. American History (3,3) 201: United States to 1865. 202: United States from 1865 to present. Three hours each week.

HST 237. Women in Modern America (3) A broad survey of the female experience in the twentieth century. This course focuses on three areas which affect the lives of modern women: work, politics and sexuality. Utilizing a comparative model, it explores similarities and differences between the first and second woman's movement, the sexual revolutions of the 1920s and 1960s, and the changing nature of women's work in modern and post-modern" society. Three hours each week.

HST 261. Afro-American History (3) A concise survey of the major themes and events in the history of black Americans from the colonial period to the present. Three hours each week.

HST 271. The Sea in History (3) Prerequisite: History 101-102 or consent of instructor. The history of mankind's interaction with the sea, focusing on its importance for resources, trade and transport, exploration, and warfare. Three hours each week.

HST 273. Evolution of Warfare (3) Prerequisite: History 101-102 or consent of instructor. The development of war from ancient times to the present, emphasizing its effect upon society. Three hours each week.

HST 275. History of Science Since 1500 (3) An introduction to the history of the major developments in western science from the scientific revolution to the present, including an examination of both the origins of scientific discoveries and their impact on society. Three hours each week.

HST 300. The American Military Experience (3) Prerequisite: History 201-202 or consent of instructor. A survey of the American military experience from the colonial period to the present with emphasis on the wars of America, the evolution and development of military policy, strategy, tactics, and technology; and the relationship of military affairs to the political, social, and economic institutions of America. Three hours each week.

HST 305. The Ancient Near East (3) Prerequisite: History 101-102 or consent of instructor. An intensive political and cultural study of ancient Babylonian, Egyptian, and other Near Eastern civilizations. Three hours each week.

HST 306. Ancient Greece and Rome (3) Prerequisite: History 101-102 or consent of instructor. A study of the civilizations of ancient Greece and Rome with special emphasis on the Greek classical period and the Pax Romana. Three hours each week.

HST 311, 312. History of England (3,3) Prerequisite: History 101-102 or consent of instructor. 311: From the Roman invasion to the Wars of the Roses. 312: From King Henry VIII to the twilight of the British Empire. Three hours each week.

HST 315. History of Ireland (3) Prerequisite: History 101-102 or consent of instructor. A brief survey of the history of Ireland from Neolithic times to the present, with emphasis on the Celtic culture, Christian influences, and the religio-political conflicts of the 19th and 20th centuries. Three hours each week.

HST 316. British Empire and Commonwealth (3) Prerequisite: History 101-102 or consent of instructor. A consideration of the British Empire, evolution of the Commonwealth and the emergence of additional post-World War II areas of independence. Three hours each week.

HST 321. History of Modern France (3) Prerequisite: History 101-102 or consent of instructor. History of France from the French Revolution and Napoleon through the political, economic and social developments of the nineteenth century to the World Wars and colonial wars of the twentieth century. Three hours each week.

HST 323. History of Modern Germany (3) Prerequisite: History 101-102 or consent of instructor. Study of German nationalism. German unification, the Bismarckian empire, Hitler's Third Reich, and the two Germanies since World War II. Three hours each week.

HST 325, 326. History of Russia (3,3) Prerequisite: History 101-102 or consent of instructor. 325: To the Bolshevik Revolution. 326: From the Bolshevik Revolution to the present. Three hours each week.

HST 327. Modern Israel (3) Prerequisite: History 102 or consent of instructor. The origins of the modern state of Israel: the history of Zionism, the Holocaust, and Great Power Diplomacy; evolution of Israel since 1948; political, social, economic, cultural, intellectual, scientific, and technological development; the Arab-Jewish conflict; and Israeli democracy and world politics. Three hours each week.

HST 328. European Social History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. The lives of ordinary people in different regions of Europe, under feudal, monarchial, capitalist, and Marxist societies; the impact of climate, geography, language, religion, education, and work on individuals, families, social groups, and nations. Three hours each week.

HST 329. European Intellectual History from 1650 to the Present (3) Prerequisite: History 101-102 or consent of instructor. A survey of the main currents of European thought and their relation to European society in general from the Scientific Revolution to the present. Three hours each week.

HST 330. Womanhood in America: Family, Work and Community Life (3) Prerequisite: History 201-202 or consent of instructor. An examination of American women and women's roles from the colonial period to the present. Three hours each week.

HST 331. American Urban History (3) Prerequisite: History 201-202 or consent of instructor. The transition in America from a pre-industrial rural society to an industrial urban society. This course explores the effect urbanization had upon America's social, political and economic institutions and concludes with an examination of how the "revolution" in transportation and technology shaped the design of American cities. Three hours each week.

HST 333. American Social History (3) Prerequisite: History 201-202 or consent of instructor. The impact of social change on American life from colonial times to the present. An examination of changing concepts of ethnicity and racial identification, the growth of religious movements, the effect of industrialization on family life, the impact of urbanization on crime and violence, and the influence of movies and television on mass behavior. Three hours each week.

HST 334. Slavery and Sectionalism (3) Prerequisite: History 201 and 202 or consent of the instructor. A study of slavery as an intellectual and political problem in the United States with special attention to abolitionism, sectional differences in the 1820-1861 period, and the impact of slavery on the war effort of both the Union and the Confederacy.

HST 335. Diplomatic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. American diplomatic activities and foreign relations since 1775. Three hours each week.

HST 336. Constitutional History of the United States (3) Prerequisite: History 201-202 or consent of instructor. Development of the Constitution through decisions of Supreme Court; evolution of federal authority in relation to distribution of governmental power, society and economic life. Three hours each week.

HST 337. History of American Thought (3) Prerequisite: History 201-202 or consent of instructor. American thought from the colonial period to the present with emphasis on those ideas having lasting influence on American institutions. Three hours each week.

HST 339. Economic History of the United States (3) Prerequisite: History 201-202 or consent of instructor. An historical study of American agriculture, labor, industry, transportation, and banking with emphasis on the relation of the government to the economy. Three hours each week.

HST 341. North Carolina, 1524 to 1835 (3) Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the colonial and federal periods to the Constitution of 1835. Three hours each week.

HST 342. North Carolina, 1835 to the Present (3) Prerequisite: History 201-202 or consent of instructor. Political, economic and social development of North Carolina in the nineteenth and twentieth centuries. Three hours each week.

HST 346. The Old South (3) Prerequisite: History 201-202 or consent of instructor. The South from the colonial period to the Civil War with emphasis on political, economic, and social institutions distinctive to the South. Three hours each week.

HST 347. The New South (3) Prerequisite: History 201-202 or consent of instructor. Aftermath of Reconstruction, rise of the New South, effects of industrialism, continuation and decline of sectionalism. Three hours each week.

HST 351. History of Canada (3) Prerequisite: History 101-102 or History 201-202 or consent of instructor. A brief survey of Canada under the French; development under British control; evolution of the Dominion; relations with the United States and British Commonwealth of Nations. Three hours each week.

HST 360. History of China (3) Prerequisite: Any two of the following: History 101, 102 or 103; or consent of the instructor. Survey of the history of China: the evolution of characteristic Chinese institutions and modes of thought from antiquity to the present within a wider framework of political, economic and cultural change; Chinese responses to western imperialism in modern times; revolutionary transformation in modern and contemporary China.

HST 361. History of Japan (3) Prerequisite: Any two of the following: History 101, 102 or 103; or consent of instructor. Survey of Japanese history from the earliest recorded times to the present emphasizing Japan's development as a cultural daughter of China: Japanization of Chinese culture and unique aspects of Japanese civilization; the emergence of a modern economy and state economic bases of Japanese militarism-imperialism; developmental characteristics of Japanese capitalism.

HST 365. History of Modern East Asia (3) Prerequisite: History 101-102 or consent of instructor. A survey of modern east Asian history from the mid-nineteenth century to the present with emphasis on the Asian response to western imperialism, institutional continuity and change, international relations, and movements toward independence and modernization. The course focuses on China, Japan and Korea with secondary attention to Southeast Asia in the post-World War II era. Three hours each week.

HST 368. Latin American History (3) Prerequisite: An America or Western Civilization survey course or consent of instructor. The development of South America, Central America, and the Caribbean from the time of the pre-Conquest civilizations to the present. Three hours each week.

HST 371. History of Africa (3) Prerequisite: History 101-102 or consent of instructor. Historical survey of African cultures with emphasis on the establishment of colonial empires, Africa under colonial rule, and modern African independence movements. Three hours each week.

HST 378. (Geography 378) Historic Preservation Planning (3) An applied research course which deals with the procedures employed by federal, state, and local agencies in locating, recording, restoring, and preserving American architectural heritage and material cultural resources. Subjects examined include: survey, documentation, and planning; historic districts; adaptive use; funding; legislation; and organizational roles.

HST 380. 20th Century International Relations (3) Prerequisite: One of the following: History 102, 103, 202, or consent of instructor. Historical analysis of the main techniques, goals, and practitioners of international relations from World War I to the present, stressing shifts in the balance of power, ideological competition, alliance systems, international organizations, peace movements, and new methods of conflict resolution.

HST 403. Medieval Civilization (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. A study of medieval institutions and culture with special emphasis on feudalism, manorialism, and the religious system of the period. Three hours each week.

HST 405. Political History of the Middle Ages (3) Prerequisite: History 101-102 or consent of instructor. A study of the political development of medieval Europe from the decline of the Roman Empire in the West to the emergence of the modern period. Three hours each week.

HST 407. Europe in the Age of the Renaissance (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. Political, economic and social changes during the Renaissance, with special attention to the artistic and intellectual achievements of the age. Three hours each week.

HST 409. Europe in the Age of the Reformation (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. Causes and development of the Protestant Revolution and the Catholic Reformation with examination of the impact of these movements on the political, economic and social institutions of early modern Europe. Three hours each week.

HST 411. Europe: From Monarchy to Revolution (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. Modern Europe from the rise of absolute kings in the seventeenth century to the defeat of the Emperor Napoleon. Emphasis is placed on the wars to gain control of Europe and colonial empire, the development of capitalist finance and a global economy, and the decline of aristocracy, climaxing in the French Revolution and the age of Napoleon. Three hours each week.

HST 413. Europe: The Age of Industry and Empire (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The origins and development of the industrial revolution in Europe; its effect on politics, population, urbanization and social class consciousness, the establishment of modern colonial empires in the nineteenth century and their place in the world economic order. Three hours each week.

HST 415. Europe and the Struggle for World Mastery (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The rivalry of Europe's great powers leading to World Wars I and II: the causes, events, and results of those global conflicts; the ensuing political revolutions in the inter-war period; anticipations of decline of the European empires; the spread of democracy and self-determination to certain areas; and European cultural and scientific development in the first half of the twentieth century. Three hours each week.

HST 417. Europe Since 1945 (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The revival of Europe after the Nazi period and its division by the Cold War; political, social, economic developments on both sides of the "Iron Curtain," decolonialization of Europe's empires; movements for political and economic integration; continuing revolutionary currents; Europe's place in contemporary world politics. Three hours each week.

HST 420. Great Britain 1815-1914: The Victorian Age (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. An examination of British society from the conclusion of the Napoleonic Wars to the outbreak of WWI. Major themes considered will include the impact of industrialization and urbanization; the gradual democratization of British politics; the cultural aspects of "Victorianism;" the foundations of British international power; the expansion of the British Empire.

HST 431. The Chinese Revolution (3) Prerequisite: History 101, 102 and completion of any university course work at the 300 level. The Chinese Revolution from the May 4th Movement (1919) to the present. Special emphasis on the social and economic origins of the revolution, the history of the Communist Movement, the evolution of Mao Zedong's thought, and revolutionary developments in the People's Republic.

HST 441. Colonial History of the U.S. (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Formation and growth of American colonies to the conclusion of the French and Indian War (1763). Three hours each week.

HST 443. The American Revolution and the Formation of the United States, 1763-1800 (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Organization of the British Empire, events preceding the Revolution, the war for independence, Confederation era, drafting and ratification of the federal Constitution, politics of the new nation. Three hours each week.

HST 445. The Early United States Republic (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Era from inauguration of Thomas Jefferson through Jacksonian democracy to the advent of the American Civil War. Three hours each week.

HST 447. The Civil War and Reconstruction (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. The American Civil War and Reconstruction of the South through 1877. Three hours each week.

HST 449. Robber Barons and Reformers, the U.S., 1877-1917 (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. The rise of American industry and the Populist-Progressive response to Urbanization and Industrialization. Three hours each week.

HST 451. Twentieth Century America (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. A study of the United States from 1917 to 1950 with emphasis upon World War I, the Roaring Twenties, Depression and New Deal, World War II, and the origins of the Cold War. Three hours each week.

HST 452. America Since 1950 (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Developments in American politics, cultural life, civil rights and foreign policy from the time of the Truman Administration to the present, including the Cold War, Korea, the Vietnam War, Watergate, the energy crisis, the nuclear arms race, feminism, and the "Me Decade." Three hours each week.

HST 470. Introduction to Applied History (3) Prerequisite: History 201, 202 and completion of course work at the 300 level in History. A research seminar designed to acquaint students with the various sectors of applied history (government/public policy, archives and information management, cultural resource management, media and research organizations), and with the research methodologies peculiar to the field. Field trips, guest speakers and a sponsored research project provide practical experience for participants.

HST 480. Topics in Afro-American History (3) Prerequisite: History 201, 202, and completion of any university course work at the 300 level. An intensive historical study of selected themes and events in the history of Afro-Americans from the origins of the Atlantic slave trade to the present. Examples of specific topics are: Slavery in the Americas, Blacks and the American Military Tradition, Black Folklore, the Harlem Renaissance and Biographies of Great Afro-American Leaders. Three hours each week.

HST 482. Community Studies (3) Prerequisite: History 201, 202 and completion of any university course work at the 300 level. Provides an introduction to the methodological and practical application of community studies. Topics include: oral history, folklore, ethnography, museum and archival collection and management and historic preservation. Students will select a research project in cooperation with one of the local museums, historical societies, the public library or another governmental agency. Three hours each week.

HST 490. Senior Seminar (3) Prerequisite: Senior standing. An exploration of historiography and the methodologies of historical research, with an emphasis on the writing of history.

HST 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Students should have a 2.0 grade point average.

HST 495. Seminar (3) Prerequisite: History 101, 102, or 201, 202 as appropriate or consent of instructor. Intensive study of historical topics not regularly covered in other courses.

HST 498. Internship in Applied History (3) Prerequisite: History 101, 102, 201, 202, 377 and at least one other history course of relevant content. Academic training and practical field experience through work with a private historical agency in the three county area in and around Wilmington. Faculty supervision and evaluation of all study and on-site activity. Open to students of junior or senior standing who have been approved by the Advisory Committee for the Intern Program.

HST 499. Honors Work in History (2-3) Prerequisite: Senior standing. Consent of instructor or department chairman. Individual study for honors students.

MARINE BIOLOGY

(See Biological Sciences)

MATHEMATICAL SCIENCES

Dr. D. Smith, *Chairman*. Dr. Alves, Dr. Berman, Dr. Bhaskaran, Dr. J. Brown, Mr. T Brown, Dr. Dankel, Dr. Etheridge, Dr. Frierson, Dr. Greim, Dr. Gurganus, Dr. Herbst, Dr. Jambor, Dr. Kambule, Dr. Karlof, Dr. Lugo, Mr. Lupton, Dr. McLaurin, Dr. Nelson, Dr. Norris, Dr. Robinson, Dr. Sadek, Dr. Saksena, Dr. H. Smith, Dr. Spackman, Dr. Whipkey, Dr. Worsey.

Requirements for a concentration in Computer Science for the B.S. degree: (See also the admission statement in the Degree Requirements section of the Catalogue.)

Core requirements: Computer Science 121, 122, 231, 241, 242, 332, 334, 360; Mathematics 161, 162, 335; Statistics 262, 362. In addition to the core requirements there are three options below, one of which a student must complete in order to fulfill the degree requirements. In general, enough latitude is allowed in each to accommodate a "double major" with mathematics or business if the student wishes.

Scientific: Computer Science 325, 425, 460; Mathematics 261, 361; Physics 201, 202; and two courses selected from Computer Science 420, Mathematics 435, 436, 461, 462, 471, and Mathematics/Statistics 465.

Systems: Computer Science 325 or Mathematics 361; Computer Science 342, 410, 442, 460; Mathematics 261; Mathematics 336 or 375; Physics 201, 202.

Business: Computer Science 455; six additional hours at the 300 or 400 level in Computer Science, Mathematics or Statistics approved by the advisor; Accounting 201, 203; Economics 221, 222; Business 314, 350; Finance 335; Marketing 340.

A grade of C or better must be earned on each required Computer Science course; a quality point average of (C) 2.0 or better must be earned on all other courses required for the concentration.

Note: Students interested in the degree program in Computer Science are encouraged to begin their mathematics study with Calculus I (Mathematics 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with Mathematics 115 or Mathematics 111-112, as appropriate. Students who place into Mathematics 162 are advised to take the Advanced Placement Test to receive college credit for Mathematics 161.

Computer Science Course Descriptions

(Department of Mathematical Sciences)

CSC 105. Survey of Computer Applications (2) An introduction to data processing for non-majors with an emphasis on understanding capabilities without engineering or programming skill. History and structure of computer systems. Concepts of simulation, operational control, information management, and time-sharing with related terminology. Types of errors in computer based systems. Social implications of the future potential of computer technology. Practice with using programs in the university library. Two hours each week.

CSC 107. Programming Laboratory—SNOBOL (1) Prerequisite: Computer Science 105 or consent of instructor. Elementary programming techniques for character-string processing and text editing. Emphasis will be placed on the pattern matching facilities of SNOBOL. Two hours each week.

CSC 111. Introduction to Computer Programming Using FORTRAN (3) Prerequisite or corequisite: Mathematics 111 or 115. Algorithms and computer systems, data representation, survey of computer applications, elementary programming techniques in FORTRAN, debugging and verification of programs. Two lecture and two laboratory hours each week.

CSC 121. Introduction to Computer Science I (3) Prerequisite: Mathematics 111 or Mathematics 115, or equivalent. Problem solving methods and algorithms in a modern high-level programming language. Introduces one or more programming environments. Emphasis on programming style and the design, coding, and testing of complete programs. A grade of "C" or better is required for taking any course for which Computer Science 121 is prerequisite. Three lecture and one laboratory hour each week.

CSC 122. Introduction to Computer Science II (3) Prerequisite: Computer Science 121. Continuation of Computer Science 121 with emphasis on character and string processing, elementary data structures, computer graphics, recursion, and use of software tools. A grade of "C" or better is required for taking any course for which Computer Science 122 is prerequisite. Three lecture and one laboratory hour each week.

CSC 125. Computer Language—FORTRAN (2) Prerequisite: Computer Science 121. Elementary and intermediate programming techniques in FORTRAN. Computer solution to numeric problems. No credit after completion of Computer Science 111. Two hours each week.

CSC 126. Computer Language—PL/1 (2) Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in PL/1. Computer solution to numeric and non-numeric problems. Two hours each week.

CSC 127. Computer Language—COBOL (2) Prerequisite: Computer Science 111 or 121. Elementary and intermediate programming techniques in COBOL. Computer solution to business oriented problems. Two hours each week.

CSC 128. Interactive Personal Computing (2) Prerequisite: Computer Science 111 or 121. Elementary programming techniques using interactive services. The use of personal computers. Two hours each week.

CSC 207. Language Processing (3) Prerequisite: Computer Science 107. The role of computers as tools in linguistic studies; literary applications of computing: verbal indexes, concordances, authorship controversies; computational linguistics; algorithms for manipulating character strings using the SNOBOL programming language. Three hours each week.

CSC 231. (Mathematics 231) Discrete Structures (3) Corequisite: Computer Science 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours each week.

CSC 241. Introduction to Computer Systems & Assembly Languages (3) Prerequisite: Computer Science 121. Introduction to computer structure. Registers, machine instructions and formats; number and character representation; execution control and addressing techniques. Basic input-output programming; files; procedures, segmentation, and linkage; recursion and re-entrancy; floating-point and string operations. Symbolic and machine-level debugging. Three hours each week.

CSC 242. Digital Logic and Computer Organization (3) Prerequisite: Computer Science 231 and 241. Study of computer system organization. Combinational and sequential circuit analysis and synthesis; medium and large-scale integrated circuits. Register-transfer language and microprogramming; instruction fetch and execution; flow of control. Input-output, controllers, interrupts, communications and codes. Introduction to computer networks. Three hours each week.

CSC 305. Computer Graphics (3) Prerequisite: Computer Science 121 and Mathematics 261. Display memory generation of points, vectors, etc. Interactive versus passive graphics. Analog storage of images on microfilm, etc. Digitizing and digital storage. Pattern recognition by features, syntax tables, random nets, etc. Data structures and graphics software. The mathematics of three dimensions, projections, and the hidden-line problem. "Graphical programs," computer-aided design and instruction, and animated movies. Three hours each week.

CSC 325. (Mathematics 325) Numerical Algorithms (3) Prerequisite: Computer Science 111 or 121, Mathematics 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

CSC 332. Data Structures (3) Prerequisite: Computer Science 122 and 231. Study of basic data structures and their applications. Lists and trees; graph algorithms; internal and external sort and search techniques; hashing; analysis and design of efficient algorithms; file processing techniques. Three hours each week.

CSC 334. Programming Languages (3) Prerequisite: Computer Science 332. Formal definition of programming languages including specification of syntax and semantics. Simple statements including precedence, infix, and postfix notation. Global properties of algorithmic languages including scope of declarations, storage allocation, grouping of statements, binding time of constituents, subroutines, coroutines, and tasks. List processing, string manipulation, data description, and simulation languages. Run-time representation of program and data structures. Three hours each week.

CSC 342. Operating Systems (3) Prerequisite: Computer Science 242 and 334. Study of supervisory programs. System services and file systems; CPU scheduling; memory management; virtual memory; disk scheduling. Deadlock characterization, prevention, and avoidance; concurrent processes; semaphores; critical sections; snychronization. Distributed systems and communication protocols. Three hours each week.

CSC 350. Computer Components and Circuits (3) Prerequisite: Mathematics 162 and Physics 202. Introduction to the basic elements of electricity, electronics, and semiconductor device theory as applied to computer components. Voltage, current, Ohm's law; capacitance, inductance, reactance, impedance, and analysis of AC circuits; transmission lines; transistors, flip-flops, and small-scale integrated circuits; medium- and large-scale integrated circuits and the microprocessor. Three hours each week.

CSC 360. Formal Languages and Computability I (3) Prerequisite: Computer Science 332. An introduction to theoretical computer science. Topics include regular expressions and finite state concepts; basic automata theory; formal grammars and languages; computability; Turing machines; elementary recursive function theory. Three hours each week.

CSC 365. Switching Theory (3) Prerequisite: Computer Science 231. Switching algebra, gate network analysis and synthesis, Boolean algebra, combinational circuit minimization, sequential circuit analysis and synthesis, sequential circuit state minimization, hazards and races, and elementary number systems and codes. Three hours each week.

CSC 410. Compiler Construction (3) Prerequisite: Computer Science 360. Review of program language structures, translation, loading, execution, and storage allocation. Compilation of simple expressions and statements. Organization of a compiler including compile-time and run-time symbol tables, lexical scan, syntax scan, object code generation, error diagnostics, object code optimization techniques, and overall design. Use of compiler writing languages and bootstrapping. Three hours each week.

CSC 420. Simulation Techniques (3) Prerequisite: Computer Science 231 and Statistics 362. Introduction to simulation and comparison with other techniques. Discrete simulation models, and introduction to, or review of, queueing theory and stochastic processes. Comparison of discrete change simulation languages. Simulation methodology including generation of random numbers and variates, design of simulation experiments for optimization, analysis of data generated by simulation experiments, and validation of simulation models and results. Selected applications of simulation. Three hours each week.

CSC 425. (Mathematics 425) Numerical Analysis (3) Prerequisite: Mathematics 325, 335 and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods, least squares, minimax, and spine approximations; polynomial interpolation; numerical integration and differentiation; solution of non-linear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming. Three hours each week.

CSC 442. Advanced Computer Organization (3) Prerequisite: Computer Science 342. Advanced topics in computer organization and architecture. Readings from the lit-

erature contrasting alternative organization schemes as they affect system development. Seminar format. Three hours each week.

CSC 450. Software Engineering (3) Prerequisite: Computer Science 332. Study of the design and production of large and small software systems. Topics include systems engineering, software life-cycle and characterization; use of software tools. Three hours each week.

CSC 455. Data Base Management Systems (3) Prerequisite: Computer Science 332. Introduction to data base concepts, data independence, logical and physical views of data base systems. Data models: hierarchial, network, and relational. Data description languages, query functions, relational algebra. Three hours each week.

CSC 460. Formal Languages and Computability II (3) Prerequisite: Computer Science 360. Advanced topics in theoretical computer science. Theory of computation; languages and syntatic analysis; computational complexity and NP-completeness. Three hours each week.

CSC 475. Topics in Computer Science (3) Prerequisite: Senior standing and permission of instructor. Topics of current interest in computer science not covered in existing courses. Three hours each week.

CSC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

CSC 495. Seminar in Computer Science (1) Prerequisite: Junior or senior standing and consent of instructor.

CSC 499. Honors Work in Computer Science (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

Requirements for a concentration in Mathematics:

Core requirements: Mathematics 161-162, 261, 275, 335, 336, 375, and either 366 or 411; Computer Science 121; Statistics 262-362; Physics 201-202; and at least nine hours at the 300 or 400 level approved by the advisor in an area related to mathematics. In addition to the core requirements there are three options listed below, one of which a student must complete to fulfill the degree requirements.

I. **B.A. degree with teacher certification in Mathematics:** Mathematics 345, 346. The Education and Psychology courses required for teacher certification satisfy the core requirements of at least nine hours at the 300 or 400 level in an area related to mathematics.

II. **B.A. degree in Mathematics:** Nine additional hours of mathematics courses at the 300 or 400 level approved by the advisor.

III. **B.S. degree in Mathematics:** Mathematics 361, one of Mathematics 367, 411 (if not used for the core requirement), 412 or 415; a mathematical modeling course, and six additional hours of mathematics or statistics courses at the 300 or 400 level approved by the advisor. The modeling requirement may be fulfilled by taking any of: Mathematics 436, 462, 471, or Mathematics/Statistics 465. (Note: Some of these courses require additional prerequisites.)

A "C" (2.0) or better average is required for mathematics courses at the 300-400 level.

Note 1: Collateral courses required in the three programs in Mathematics must be chosen from departmentally approved courses which, together with the student's Mathematics courses, comprise a coherent program. Normally a proposed program of study should be submitted to the department for approval prior to the beginning of the student's junior year.

Note 2: Students interested in a degree program in Mathematics are encouraged to begin their mathematics study with Calculus I (Mathematics 161). Initial placement in mathematics is based on high school background and the Mathematics Placement Test. Students not prepared for calculus in their first semester should begin with Mathematics 115 or Mathematics 111-112, as appropriate. Students who place into Mathematics 162 are advised to take the Advanced Placement Test to receive college credit for Mathematics 161.

Mathematics Course Descriptions

(Department of Mathematical Sciences)

In general, Mathematics is sequential in nature. Therefore, successful mastery of each course in sequence is necessary in order to be adequately prepared for the next course. In light of this, it is strongly recommended that students obtain a grade of at least "C" before registering for the next course in a sequence. With special permission a student can repeat a course in which a "D" grade is obtained. Sequences offered where this guideline is applicable are Mathematics 111-112, Mathematics 111-151, Mathematics 111-112-151-152, Mathematics MAT 115-151-152, Mathematics 111-112-161-162-261, Mathematics 115-161- 162-261.

MAT 100. Foundations of Algebra (0) Designed primarily for students not prepared for Mathematics 111 who need additional manipulative skills, particularly in algebra. Three hours each week. (No credit granted toward graduation. Hours are counted in computing student loads, but not in computing quality point ratios.)

MAT 101-102. College Mathematics for The General Student (3-3) A survey of mathematical ways of thinking designed for the general student. Not intended as preparation for further mathematics courses. Cannot be substituted for MAT 111, 112, or 115. Emphasis on concepts and applications rather than on manipulative skills. Introduces logic, number systems, algebra, geometry, probability, statistics, computers, calculus and the history of mathematics. No credit granted after the completion, with a grade of C or better, of a mathematics course numbered 141 or higher. Three hours each week.

MAT 111. Precalculus I (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. A preparatory course for further mathematics courses. Equations and inequalities; polynomial, exponential and logarithmic functions; graphs; systems of equations and inequalities. No credit granted after the completion, with a grade of C or better, of Mathematics 115 or a mathematics course numbered 151 or higher. Three hours each week.

MAT 112. Precalculus II (3) Prerequisite: Mathematics 111 or equivalent or satisfactory performance on the UNCW mathematics placement test. Topics from trigonometry and algebra. Includes trigonometric functions, identities and equations; zeros of polynomials; mathematical induction; and sequences. No credit granted after the completion, wtih a grade of C or better, of Mathematics 115 or a mathematics course numbered 152 or higher. Three hours each week.

MAT 115. Elementary Mathematical Analysis (3) Prerequisite: Satisfactory performance on the UNCW mathematics placement test. (This is usually equivalent to an SAT Score above 500 in math, and at least a B average in Algebra I and II, Geometry, Advanced Algebra and Trigonometry.) A one-semester treatment of the topics listed under Mathematics 111 and Mathematics 112. No credit granted after the completion, with a grade of C or better of Mathematics 111, Mathematics 112, or a mathematics course numbered 151 or higher. Three hours each week.

MAT 141-142. Basic Concepts of Mathematics (3-3) (Designed for students majoring in elementary education.) The real number system and related operations, units of measurement, graphs and data analysis, geometry, logic and sets, an introduction to calculators and computers. Three hours each week.

MAT 151-152. Basic Calculus with Applications (3-3) Prerequisite: Mathematics 111 or 115 for 151; Mathematics 112 or 115 and 151 for 152. Differentiation and integration of algebraic and certain transcendental functions, partial differentiation, sequences and series. Greater emphasis is placed on techniques and applications than on theory and derivations. This sequence is not intended for students who need mathematics beyond calculus. Three hours each week.

MAT 161-162. Calculus with Analytic Geometry (4-4) Prerequisite: Mathematics 112 or 115 or equivalent preparation in algebra and trigonometry. Treatment of calculus of a single variable intended for students in the mathematical and natural sciences. Functions and limits; differentiation with applications including maxima and minima, related rates, differentials and approximations; theory of integration with applications; equations of curves including the conic sections; transcendental functions; infinite sequences and series. Three hours lecture and two hours laboratory each week.

MAT 231. (Computer Science 231) Discrete Structures (3) Corequisite: Computer Science 121. Introduction to discrete mathematics. Propositional logic; set algebra; Boolean algebra and elementary minimization; relations; principles of recursion and induction; elementary graph theory and applications to computer science. Three hours each week.

MAT 261. Multivariate Calculus (4) Prerequisite: Mathematics 162. Calculus of functions of several variables. Polar coordinates and parametric equations, solid analytic geometry, partial derivatives, multiple integrals. Three hours lecture and two hours laboratory each week.

MAT 275. Axiomatic Systems (3) Prerequisite: Mathematics 161. An introductory treatment of propositional and predicate logic and methods of proof. Elementary set theory, relations, functions and topics from axiomatic systems. Precision in the use of mathematics as a language and rigor in proofs are emphasized. Students present and discuss appropriate material to gain experience in communicating mathematics. Three hours each week.

MAT 325. (Computer Science 325) Numerical Algorithms (3) Prerequisite: Computer Science 111 or 121, Mathematics 162. An introduction to the numerical algorithms fundamental to scientific computer work. Includes elementary discussion of error, polynomial interpolation, quadrature, linear systems of equations, solution of nonlinear equations, and numerical solution of ordinary differential equations. The algorithmic approach and the efficient use of the computer are emphasized. Three hours each week.

MAT 335. Linear Algebra and Matrices (3) Prerequisite: Mathematics 162. Systems of linear equations, vector spaces, algebra of matrices and linear transformations, determinants, applications. Three hours each week.

MAT 336. Modern Algebra (3) Prerequisite: Mathematics 275, 335 or consent of instructor. Equivalence relations; groups, subgroups, normal subgroups, quotient groups; rings, subrings, ideals, quotient rings; rings of integers, fields of rational, real and complex numbers, polynomial rings. Three hours each week.

MAT 345. Modern College Geometry (3) Prerequisite: Mathematics 275 or consent of instructor. Use of elementary methods in advanced study of the triangle and circle, special emphasis on solving original examples, comparison of Euclidean and non-Euclidean and projective geometries. Three hours each week.

MAT 346. Historical Development of Mathematics (3) Corequisite: Mathematics 275 or consent of instructor. Development of mathematics from earliest systems to present century. Personalities involved with the contributions of each. A problem-study approach to give the student some training in research. Three hours each week.

MAT 361. Differential Equations (3) Prerequisite: Mathematics 261. Theory, methods of solution, and applications of ordinary differential equations with emphasis on first order equations and linear equations. Additional topics from power series solutions, Laplace transforms, linear systems, and numerical methods. Three hours each week.

MAT 366. Advanced Calculus I (3) Prerequisite: Mathematics 261. A thorough study of differential and integral calculus of vector-valued functions of a vector variable. Jacobians, inverse and implicit function theorems, change of variables in multiple integrals; theorems of Green, Gauss, and Stokes; applications. Three hours each week.

MAT 367. Advanced Calculus II (3) Prerequisite: Mathematics 366. Further topics in analysis and their applications. Infinite series, power series, uniform convergence; Fourier series and orthogonal functions; Fourier and Laplace transforms; elementary applications to differential equations and boundary value problems. Introduction to complex variables and residue theory. Three hours each week.

MAT 375. Combinatorics (3) Prerequisite: Statistics 262 and either Mathematics 275 or Computer Science/Mathematics 231. Techniques for counting configurations of objects. Recurrence relations; principle of inclusion-exclusion; graphs, trees, and circuits. Additional topics chosen from Polya's Theorem, generating functions, and network flows. Three hours each week.

MAT 411-412. Real Analysis (3-3) Prerequisite: Mathematics 261 and 275. Advanced study of convergence, continuity, differentiation, and integration in Euclidean space. The real number system, basic topology of Euclidean spaces; sequences and series; continuity, differentiation of vector-valued functions, uniform continuity; theory of integration; implicit and inverse function theorems, Stokes' Theorem. Three hours each week.

MAT 415. Introduction to Complex Variables (3) Prerequisite: Mathematics 367 or 411. A first study of functions of a complex variable. Algebra of complex numbers, elementary functions with their mapping properties; analytic functions; power series; integration, Cauchy's Theorem, Laurent series and residue calculus; elementary conformal mappings and boundary value problems. Three hours each week.

MAT 421. Number Theory I (3) Prerequisite: Mathematics 336. Use of alebraic techniques to study arithmetic properties of the integers and their generalizations. Primes, divisibility and unique factorization in integral domains; congruences, residues and quadratic reciprocity; diophantine equations and additional topics in algebraic number theory. Three hours each week.

MAT 425. (Computer Science 425) Numerical Analysis (3) Prerequisite: Mathematics 325, 335 and 361. Introduction to the theoretical foundations of numerical algorithms. Solution of linear systems by direct methods; least squares, minimax, and spline approximation; polynomial interpolation; numerical integration; and differentiation; solution of nonlinear equations; initial value problems in ordinary differential equations. Error analysis. Certain algorithms are selected for programming. Three hours each week.

MAT 435. Linear Programming (3) Prerequisite: Computer Science 111 or 121 and Mathematics 335. Methods and applications of optimizing a linear function subject to linear constraints. Theory of the simplex method and duality; parametric linear programs; sensitivity analysis; modeling and computer implementation. Three hours each week.

MAT 436. Discrete Optimization (3) Prerequisite: Mathematics 435. Theory and applications of discrete optimization algorithms. Transportation problems and network flow problems; integer programming; computer implementation. Three hours each week.

MAT 451. Topology I (3) Prerequisite: Mathematics 275 and 336. A study of the basic concepts of general topology. Metric spaces, continuity, completeness, compactness, connectedness, separation axioms, product and quotient spaces; additional topics in point-set topology. Three hours each week.

MAT 457. Differential Geometry (3) Prerequisite: Mathematics 366 or 411. Theory of curves and surfaces in Euclidean space. Frenet formulas, curvature and torsion, arc length; first and second fundamental forms, Gaussian curvature, equations of Gauss and Codazzi, differential forms, Cartan's equations; global theorems. Three hours each week.

MAT 461. Partial Differential Equations (3) Prerequisite: Mathematics 361 and 367. Theory and applications of linear partial differential equations. Elliptic, parabolic and hyperbolic equations; separation of variables; Fourier series; Green's functions; Sturm-Liouville problems. Three hours each week.

MAT 462. Continuous Mathematical Models (3) Prerequisite: Mathematics 461, or consent of instructor. Emphasis on the interplay between representative mathematical concepts and selected scientific models. Mathematical topics may include Fourier analysis, calculus of variations, operator theory, perturbation theory, tensor analysis, stability theory, integral equations, and potential theory. Areas of application may include classical, fluid, continuous, celestial, and quantum mechanics, wave propagation, and diffusion. Three hours each week.

MAT 463. Ordinary Differential Equations (3) Prerequisite: Mathematics 335 and 361. Advanced study of ordinary differential equations. Existence and uniqueness; systems of linear equations, fundamental matrices, matrix exponential; series solutions, regular singular points; plane autonomous systems, stability and perturbation theory; Sturm-Liouville theory and expansion in eigenfunctions. Three hours each week.

MAT 465. (Statistics 465) Applied Probability (3) Prerequisite: Mathematics 261 and Statistics 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Emphasis on conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queuing theory, Gaussian process, Brownian motion, and elementary stochastic differential equations. Three hours each week.

MAT 471. Projects in Mathematical Modeling (3) Prerequisite: One of Computer Science 420, Mathematics 435, 461, or Mathematics/Statistics 465. Techniques of problem recognition and formulation, and mathematical solution and interpretation of results. Each student will construct a mathematical model under the supervision of the Applied Mathematics Committee and report on the investigation in written and oral form. Seminar format.

MAT 475. Topics in Mathematics (3) Prerequisite: Junior or senior standing and permission of instructor. Topics of current interest in mathematics not covered in existing courses. Three hours each week.

MAT 481. Introduction to Mathematical Logic (3) Prerequisite: Mathematics 275 and 336. The formal study of truth and provability. Propositional calculus; predicate calculus. Gödel's completeness theorem, applications to formal number theory and incompleteness. Additional topics chosen from areas such as undecidability or nonstandard analysis. Three hours each week.

MAT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, a "B" or better average on all mathematics courses taken.

MAT 495. Seminar in Mathematics (1) Discussion of selected topics and problems. One hour each week.

MAT 499. Honors Work in Mathematics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

Statistics Course Descriptions

(Department of Mathematical Sciences)

STT 205. Introduction to Statistics with Applications in the Social Sciences (3) Prerequisite: Mathematics 101, 111, or 115. (Designed for students majoring in the social sciences.) Graphical and numerical methods for univariate data; bivariate data organization and measures of association; contingency table analysis; sampling distributions; estimation and hypothesis testing; introduction to linear regression and correlation. Three hours each week.

STT 205-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 210. Introduction to Statistics with Applications in the Health Sciences (3) Prerequisite: Mathematics 111. Collection, tabulation and graphical representation of data. Measures of location and variation, measures of association and chi-squared distribution, correlation and regression, binomial, Poisson and normal distributions, estimation and tests of hypotheses. Health care statistics, elementary computer skills in analysis of data and interpretation of computer printout. Three hours each week.

STT 215. Introduction to Statistics with Applications in the Natural Sciences (3) Prerequisite: Mathematics 111 or 115. (Designed for students majoring in the natural sciences.) Graphical and numerical descriptive methods; random variables and probability distributions; estimation and hypothesis testing (large and small samples); linear regression and correlation; one-way analysis of variance; contingency tables and goodness of fit. Three hours each week.

STT 215-51. Statistics Laboratory (1) Prerequisite or corequisite: Statistics 205 or 215, or the equivalent. Computers are used to illustrate the descriptive and inferential methods of Statistics 205 and 215. Emphasis is on the use of existing statistical packages such as SAS, BMD, MINITAB, and SPSS. No computer programming knowledge is required. Two hours each week.

STT 250. Introduction to Sampling Techniques (3) Prerequisite: Any introductory statistics course such as Statistics 205, 210, 215, Business 217, or Psychology 225. An introduction to sampling techniques intended for students in the social, behavioral, natural or health sciences. Simple random sampling, stratified random sampling, cluster sampling, and ratio and regression estimation. Three hours each week.

STT 262. Discrete Probability and Random Variables (2) Prerequisite: Mathematics 151 or 161. An introduction to random variables and probability distributions in the discrete case. Topics include descriptive statistics; elementary combinatorics; discrete sample spaces and probability; mathematical expection; Tchebyshev's Theorem; conditional probability and independence; Bayes' Theorem; joint, conditional and marginal distributions; common discrete probability models. Introduction to continuous random variables. Two hours each week.

STT 362. Continuous Probability and Statistics (2) Prerequisite: Statistics 262 and Mathematics 152 or 162. Continuous random variables and their distributions. Topics include functions of random variables; estimation and tests of hypotheses; regression and correlation; least square curve fitting. Two hours each week.

STT 410. (Marine Biology 510) Applied Statistical Methods (3) Prerequisite: Statistics 205 or 215, or the equivalent. After a review of elementary statistics, the following major areas are studied: non-parametric methods; analysis of variance and experimental design and regression analysis. Three hours each week.

STT 430. Introduction to Non-Parametric Statistics (3) Prerequisite: Statistics 362. Theory and methods of non-parametric statistics in the one- and two- sample problems and their comparisons with standard parametric procedures. Non-parametric tests for comparing more than two samples; tests of randomness and independence. Three hours each week.

STT 440. Linear Models and Regression Analysis (3) Prerequisite: Mathematics 261 and 335 and Statistics 362. Theoretical introduction to the general linear model and

its application to simple linear regression and multiple regression. Estimation and hypothesis testing of model coefficients; residual analysis; analysis of covariance. Three hours each week.

STT 465. (Mathematics 465) Applied Probability (3) Prerequisite: Mathematics 261 and Statistics 362. The formulation, analysis and interpretation of probabilistic models. Selected topics in probability theory. Emphasis on conditioning, Markov chains, and Poisson processes. Additional topics chosen from renewal theory, queueing theory, Gaussian processes, Brownian motion, and elementary stochastic differential equations. Three hours each week.

STT 466-467. Mathematical Statistics (3-3) Prerequisite: Mathematics 261 and Statistics 362. A rigorous introduction to mathematical statistics. Univariate and multivariate probability distributions; conditional and marginal distributions; theory of estimation and hypothesis testing; limiting distributions and the central limit theorem; sufficient statistics and the exponential class of probability density functions. Three hours each week.

STT 475. Topics in Statistics (3) Prerequisite: Senior standing or permission of instructor. Topics of current interest in Statistics not covered in existing courses. Three hours each week.

STT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing, consent of the department chairman, and a "B" or better average on all mathematical sciences courses taken.

STT 499. Honors Work in Statistics (2-3) Prerequisite: Eligibility for honors program. Individual study for honors students.

MILITARY SCIENCE (ARMY ROTC)

(Department of Military Science)

Lieutenant Colonel Martin, *Chairman;* Major Gillette; Captain Frasure; Captain Longo.

The Army Reserve Officers' Training Corps at The University of North Carolina at Wilmington provides men and women, who meet the physical and mental requirements, the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Transfer and graduate students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

The Basic Course

MLS 101. Basic Military Skills I (1) An introduction to first aid, rappeling, self defense, drill and ceremonies, customs of the service and the organization of the Army. One laboratory hour each week.

MLS 102. Basic Military Skills II (1) Marksmanship, survival skills, water operations, rope bridges and leadership. Skills are practiced in an outdoor environment. One laboratory hour each week.

MLS 201. Small Unit Leadership I (1) Introduction to small unit leadership, physical readiness training, characteristics and employment of US Infantry weapons. Also includes unit hot and cold weather injury prevention and the conduct of inspections. One laboratory hour each week.

MLS 202. Small Unit Leadership II (1) Basic map reading, day and night land navigation and orienteering in an outdoor environment. Introduction to the principles of war. One laboratory hour each week.

MLS 211. Basic Camp (4) Pass a physical fitness examination. Six-week camp held at Ft. Knox, Kentucky, which is used to satisfy basic course prerequisite for enrollment into Advanced ROTC. Emphasis is on physical fitness, marksmanship, leadership training, tactical training of the individual soldier, first-aid, and the purpose and function of nuclear, biological, and chemical warfare equipment. Dismounted drill, military courtesy and the wearing of the Army uniform are also examined.

The Advanced Course

Prerequisite: One of the following: Three years of JROTC, a veteran with a favorable reenlistment code, completion of the Basic Course or Military Science 211, or the National Guard or Army Reservist Junior who has finished basic training. Students must maintain a 2.0 grade point average, pass a physical examination and be a US citizen.

MLS 301. Advanced Military Skills (3) Land navigation, terrain analysis, NBC defense, communications procedures, first aid, combat intelligence. Includes an overview of the Soviet Army and a discussion of the role of the NCO in the US Army. One laboratory hour each week.

MLS 302. Small Unit Tactics (3) Prerequisite: Military Science 301 or approval of chairman. A continuation of Military Science 301, designed to provide the student with practical military skills including military symbols, squad and platoon tactics and a review of communications, weapons, and first-aid. One laboratory hour each week.

MLS 311. Advanced Camp (0) Prerequisite: Military Science 301 and 302 or approval of chairman. Six week camp at Ft. Bragg, North Carolina. Advanced leadership techniques, squad and platoon tactics, tactical training of the individual soldier, land navigation, physical fitness, first-aid and NBC skills. In addition, students will be evaluated on their performance as potential junior officers throughout camp.

MLS 401. Staff and Management (3) Prerequisite: Military Science 301, 302, or approval of chairman. A study of the organization and functions of the military staff, i.e., the Commander, the Personnel Officer, the Intelligence Officer, the Operations Officer and the Supply Officer. Students prepare training schedules and present instruction to basic course cadets during leadership laboratory.

MLS 402. Military Justice (3) Prerequisite: Military Science 401, or approval of chairman. Advanced military subjects to include the military system of justice; also includes counseling techniques, unit administration, and methods of written and oral communications. There is a one-hour leadership laboratory conducted each week.

Military Science Students must also take either History 300 (the American Military Experience) and Philosophy and Religion 215 (Military Ethics) or have Department of Military Science Chairman's approval for substitute course prior to commissioning. Cadets are also required to elect one of the following:

1. Political Science 111—Introduction to Political Science (3)
2. Psychology 145—Psychology Applied to Human Life (3)
3. Sociology 105—Introduction to Sociology (3)
4. Anthropology 105—Introduction to Anthropology (3)

Cadets must also have one year of English composition, a management course, and National Security policy, i.e., Political Science 423 (3) within the first 10 years of federal service. Only 13 credit hours of Military Science courses may count toward graduation.

MEDICAL TECHNOLOGY

(See Professional Programs)

MODERN LANGUAGES

Dr. Beeler, *Chairman.* Mrs. Bellamy, Dr. Lapaire, Mr. Lowe, Dr. J. Mount, Dr. T. Mount, Dr. Perez, Dr. Sparks, Mrs. Stites, Dr. Woodhouse.

A student who offers two high school units in French, German or Spanish, who wishes to continue the study of the same language, will normally begin at the intermediate level. However, a student whose language placement test scores and high school language grades are not satisfactory will be placed in and granted credit for the elementary level. A student who offers three or more high school units in French, German, or Spanish, and whose placement test scores are sufficiently high, may gain admission to the 300 level courses in the language.

The Department of Modern Languages offers the B.A. degree in French or Spanish.

Requirements for a concentration in French for the B.A. degree: Completion of all 300 level courses in French and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305; History 101 and 102, one course in English literature; and one additional foreign language through the intermediate level.

French Course Descriptions

(Department of Modern Languages)

FRH 101-102. Elementary French (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken French; reading, writing, and basic conversation. Three hours each week. Fall and Spring.

FRH 105. French for Tourists (3) General interest course, but designed specifically for those planning to travel in a French-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Fall and Spring.

FRH 201-202. Intermediate French (3-3) Prerequisite: French 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas,

including literature, history, politics, sociology, religion and others. Oral discussions to enable the student to apply his knowledge of the language. Brief explanations of grammatical points when necessary. Three hours each week. Fall and spring.

FRH 305. Conversation and Composition (3) Prerequisite: French 202 or equivalent. Intensive training in spoken and written French. Three hours each week. Fall.

FRH 306. Advanced Grammar (3) Prerequisite: French 202 or equivalent. Comparative grammar and translation; required of those preparing to teach at the high school level. Three hours each week. Fall.

FRH 307. Phonetics (3) Prerequisite: French 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those preparing to teach at the high school level. Three hours each week. Spring.

FRH 311, 312. French Civilization (3,3) Prerequisite: French 202. Geographical, historical, and cultural aspects of France. 311: From prehistoric times to the French Revolution, 312: From the French Revolution to the present. Three hours each week. Fall and spring.

FRH 321, 322. Survey of French Literature (3,3) Prerequisite: French 202. Extensive readings covering the main currents of French literature; emphasis in classroom discussion on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring.

FRH 336. Explication De Texte (3) Prerequisite: French 305 or equivalent. Training in French textual criticism; oral and written reports. Three hours each week. Spring.

FRH 405. Advanced Conversation and Composition (3) Prerequisite: French 305 or equivalent. Emphasis on oral French, essay writing and translation. Recommended for students preparing for teaching. Three hours each week. Offered on demand.

FRH 425. French Literature of the Sixteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the Renaissance: Rabelais, Ronsard, Du Bellay, Montaigne, and others; oral and written reports. Three hours each week. Fall 1989 and alternate years.

FRH 426. French Literature of the Eighteenth Century (3) Prerequisite: French 322 or equivalent. Major writers of the French Enlightenment: Montesquieu, Voltaire, Diderot, Rousseau, and others; oral and written reports. Three hours each week. Fall 1989 and alternate years.

FRH 430. The French Novel of the Twentieth Century (3) Prerequisite: French 322. Reading, discussion and analysis of representative works of Proust, Gide, Malraux, Sartre, Camus, and others; oral and written reports. Three hours each week. Spring 1989 and alternate years.

FRH 435. The Nineteenth Century French Novel (3) Prerequisite: French 322. Reading, discussion and analysis of major novels; romanticism, realism, and naturalism. Three hours each week. Fall 1988 and alternate years.

FRH 436. French Classicism (3) Prerequisite: French 322. Reading, discussion and analysis of representative works with emphasis on dramatic literature of the 17th century: Corneille, Racine, and Moliere. Three hours each week. Fall 1988 and alternate years.

FRH 437. French Lyric Poetry from Villon to Baudelaire (3) Prerequisite: French 322 or equivalent. Major lyric forms from the Middle Ages to the 19th century; oral and written reports. Three hours each week. Spring 1989 and alternate years.

FRH 438. Masterpieces of French Drama (3) Prerequisite: French 322 or equivalent. The theatre in France from the Renaissance to modern times. Representative texts; oral and written reports. Three hours each week. Spring 1988 and alternate years.

FRH 439. Masterpieces of French Prose Fiction (3) Prerequisite: French 322 or equivalent. Representative works of imaginative French prose from the 17th century to the present; oral and written reports. Three hours each week. Spring 1988 and alternate years.

FRH 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

FRH 495. Seminar in French Literature (1-3) Prerequisite: French 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

FRH 499. Honors Work in French (2-3) Prerequisite: Senior standing and eligibility for honors program. Independent study for honors students.

Requirements for a concentration in Spanish for the B.A. degree: Spanish 305, 306, 307, 311, 312, 321, 322, and at least two courses on the 400 level. A "C" or better grade in each course taken in the area of concentration, or a better than 2.0 average on all courses taken in the area of concentration. Required collaterals: Modern Language 305, History 101 and 102, one course in English literature, and one additional foreign language through the intermediate level.

Spanish Course Descriptions

(Department of Modern Languages)

SPN 101-102. Elementary Spanish (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice; intensive study of the basic patterns of spoken Spanish; reading, writing and basic conversation. Three hours each week. Fall and spring.

SPN 105. Spanish for Tourists (3) General interest course, but designed specifically for those planning to travel in a Spanish-speaking country. Emphasis on practical communication, current vocabulary and colloquial expressions. Realia and audio-visual aids used extensively. Course may be structured to answer specific individual needs. Three hours each week. Fall and spring.

SPN 201-202. Intermediate Spanish (3-3) Prerequisite: Spanish 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including literature, history, politics, sociology, religion, and others. Oral discussion to enable the student to apply his knowledge of the language. Brief explanation of grammatical points when necessary. Three hours each week. Fall and spring.

SPN 209. Spanish Literature in Translation (3) Study of representative works from the literature of Spain. Readings and class discussions in English. Three hours each week. Fall 1989 and alternate years.

SPN 210. Spanish-American Literature in Translation (3) Study of representative works from the literature of Spanish America. Readings and class discussion in English. Three hours each week. Spring 1988 and alternate years.

SPN 211. Spain Today (3) An examination of the institutions and social fabric of contemporary Spain as they evolved from raditional roots, including units on history, politics, regional culture, literature, music, art, customs and economic resources. Readings and class discussions in English. Three hours each week. Fall 1988 and alternate years.

SPN 212. Latin America Today (3) An examination of the institutions and social fabric of contemporary Latin America as they evolved from traditional roots, including units on history, politics, indigenous cultures, literature, music, art, customs, and economic resources. Readings and class discussions in English. Three hours each week. Spring 1988 and alternate years.

SPN 304. Business Spanish (3) Prerequisite: Spanish 202 or equivalent. Designed for students who need familiarization with the terminology necessary for the fields of economics, business, accounting, natural sciences and others. Business correspondence in Spanish and the currency systems of the Spanish-speaking countries are included. Three hours each week. Spring.

SPN 305. Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Intensive training in spoken and written Spanish. Three hours each week. Fall.

SPN 306. Advanced Grammar (3) Prerequisite: Spanish 202 or equivalent. Grammatical forms and usage; required of those who plan to teach at the high school level. Three hours each week. Fall.

SPN 307. Phonetics (3) Prerequisite: Spanish 202 or equivalent. Various speech phenomena; practice in phonetic transcription, pronunciation, and intonation; required of those who plan to teach at the high school level. Three hours each week. Spring.

SPN 311, 312. Spanish and Spanish-American Civilization (3,3) Prerequisite: Spanish 202 or equivalent. Geographical, historical and cultural aspects of Spain (311) and Spanish America (312). Three hours each week. Fall and spring.

SPN 321, 322. Survey of Spanish Literature (3,3) Prerequisite: Spanish 202 or equivalent. Extensive readings covering the main currents of Spanish literature; emphasis in classroom discussions on textual analysis and criticism; oral and written reports. Three hours each week. Fall and spring.

SPN 405. Advanced Conversation and Composition (3) Prerequisite: Spanish 202 or equivalent. Emphasis on oral Spanish, essay writing and translation. Recommended for students preparing for teaching. Three hours each week. Offered on demand.

SPN 421, 422. Spanish-American Literature (3,3) Prerequisite: Spanish 322 or equivalent. 421: Representative works from colonial times to the Modernista movement. 422: Representative works from the Modernista movement to the present with emphasis on the novel and poetry. Three hours each week. Fall and spring, 1988-89 and alternate years.

SPN 430. Spanish Literature of Middle Ages (3) Prerequisite: Spanish 322 or equivalent. Literature of medieval Spain. Three hours each week. Fall 1988 and alternate years.

SPN 431. Golden Age Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature of the sixteenth and seventeenth centuries. Three hours each week. Spring 1988 and alternate years.

SPN 432. Modern Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the beginning of the eighteenth century to the Generation of 1898. Three hours each week. Fall 1989 and alternate years.

SPN 433. Contemporary Spanish Literature (3) Prerequisite: Spanish 322 or equivalent. Spanish literature from the Generation of 1898 to the present. Three hours each week. Spring 1988 and alternate years.

SPN 434. Cervantes (3) Prerequisite: Spanish 322 or equivalent. *Don Quixote* and other selected works. Three hours each week. Fall 1988 and alternate years.

SPN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

SPN 495. Seminar in Spanish Studies (1-3) Prerequisite: Spanish 322 or equivalent. Cooperative study of a selected topic under the direction of departmental faculty. Research, informal presentations, reports, discussions. Fall and spring.

SPN 499. Honors Work in Spanish (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

German Course Descriptions

(Department of Modern Languages)

GER 101-102. Elementary German (3-3) Emphasis on achievement of an active command of the language. Aural-oral practice, intensive study of the basic patterns of spoken German; reading, writing and basic conversation. Three hours each week. Fall and spring.

GER 201-202. Intermediate German (3-3) Prerequisite: German 102 or equivalent. 201: A review of the most important and practical aspects of the grammatical structure of the language. Application of the language in composition, conversation and readings. 202: Emphasis on reading a variety of material drawn from different areas, including history, literature, religion, and the sciences. Composition and conversation to enable the student to apply and expand his knowledge of the language. Individual projects relating to the student's major field of interest. Three hours each week. Fall and spring.

GER 305. Conversation and Composition (3) Prerequisite: German 202 or consent of instructor. Intensive training in spoken and written German. Three hours each week. Fall 1988 and alternate years.

GER 321, 322. Survey of German Literature (3,3) Prerequisite: German 202 or consent of instructor. Extensive readings covering the main trends of German literature; emphasis in classroom discussion on textual analysis and criticism; oral and written

reports. 321: Literature through Goethe. 322: Literature beginning with the Romantiker. Three hours each week. Fall and spring, 1989-90 and alternate years.

GER 350. Masterpieces of German Literature in English Translation (3) Reading, discussion, and analysis of representative works by major German authors: Lessing, Goethe, Schiller, Kleist, Hebbel, Hauptmann, Mann, Hesse, and others. Knowledge of German not required. Three hours each week. Spring 1989 and alternate years.

GER 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman. Fall and spring.

Modern Language Course Descriptions

(Department of Modern Languages)

MLN 305. Romance Linguistics (3) Prerequisite: French 307 or Spanish 307 or equivalent. Origins of French and Spanish. Historical phonology, morphology and syntax; some attention to comparative and applied linguistics. Three hours each week. Spring.

Portuguese Course Descriptions

(Department of Modern Languages)

PRT 101-102. Elementary Portuguese (3-3) Emphasis on the acquisition of an active and useful command of the language. Intensive aural-oral practice with the study of grammatical structures along with the pursuit of a reading and writing ability. Discussions to introduce the students to the culture of the Portuguese-speaking areas of the world, primarily Brazil and Portugal. Three hours each week. Fall and spring.

PRT 201-202. Intermediate Portuguese (3-3) Prerequisite: Portuguese 102 or equivalent. 201: A thorough and practical review and summarization of modern Portuguese. Introduction to readings of literary and intellectual value, as well as some materials of social and political interest. Continuation of the aural-oral practice in class. 202: Emphasis on reading for the student in subjects of various types. Materials drawn from fields such as history, politics, sociology, geography, and others. Oral discussions to enable the student to apply his knowledge of the language. Brief grammatical explanations when necessary. Three hours each week. Fall and spring.

MUSIC

(See Creative Arts)

PHILOSOPHY AND RELIGION

Dr. Megivern, *Chairman*. Dr. Altrichter, Dr. Conser, Dr. Gauthier, Dr. McGowan, Dr. Schmid, Dr. Shinn, Dr. Turrisi, Dr. Wilson.

Requirements for a concentration in Philosophy and Religion for the B.A. degree:

I. **B.A. degree with emphasis in Philosophy:** Philosophy and Religion 101, 103, 110, 115, 201, 202, 400, and 15 additional hours including at least 9 at the 300-400 level.

II. **B.A. degree with emphasis in Religion:** Philosophy and Religion 101, 103, 110, 230 and either the Biblical sequence (235, 236) or the History sequence (238, 240) plus 400 and 15 additional hours including at least 9 at the 300-400 level.

Philosophy Course Descriptions

(Department of Philosophy and Religion)

P&R 101. Invitation to Philosophical Thinking (3) An introduction to various philosophers and philosophical problems from historical, critical, and other perspectives. Three hours each week.

P&R 110. Introduction to Logic (3) Introduction to the principles of logic including the rules of deduction, the categorical syllogism, induction, and fallacies. Initiation in computer logic programs. Three hours each week.

P&R 115. Introduction to Ethics (3) An introduction to fundamental principles, theories, and problems in ethics. Three hours each week.

P&R 201. History of Western Philosophy I (3) A survey of Western philosophical thought in ancient and medieval times. Emphasis on the Greek origins of the philosophical tradition. Readings from the Pre-Socratics, Plato, Aristotle, Roman philosophy and such Christian thinkers as Augustine and Thomas Aquinas. Three hours each week.

P&R 202. History of Western Philosophy II (3) A survey of Western philosophical thought from the beginning of the modern era to the present. Emphasis on the rationalist and empiricist traditions. Readings from such philosophers as Descartes, Spinoza, Locke, Hume, Kant and Russell. Three hours each week.

P&R 205. American Philosophy (3) A survey of American philosophical thought from colonial times to the present. Readings from such American thinkers as Jonathan Edwards, the Federalist authors, Thoreau, James, Dewey and Quine. Three hours each week.

P&R 211. Toward a Contemporary Philosophy of Man (3) An effort to clarify the meanings of man as he presents himself in our contemporary world; oriented toward a theory of education and of psychology. Three hours each week.

P&R 213. Existentialism (3) An introduction to major themes in existential thought such as freedom, authenticity, death of God, the meaning of life. Primary source readings from existential authors, e.g., Kierkegaard, Nietzsche, Heidegger, Sartre, Marcel. Three hours each week.

P&R 215. Applied Ethics (3) Examination of the principles and problems in the application of ethics to a particular area of concern. Topics will vary from one course offering to another. (Ethics in the World of Business; Bioethics; Military Ethics). Three hours each week.

P&R 218. Symbolic Logic (3) Fundamentals of an axiomatic logical system, including both the propositional calculus and the predicate calculus, consistency and completeness proofs, and mathematical induction. Three hours each week.

P&R 220. Philosophy & Science Fiction (3) A survey of the major philosophical themes explored in contemporary science fiction. Topics covered will include the nature and limits of science and technology, human nature, and the viability of alternative political arrangements. The emphasis will be on learning to identify the philosophical themes that underlie much of contemporary science fiction and to use these to develop a better understanding of the modern world. Readings will include both fiction and contemporary philosophy.

P&R 302. Plato (3) Prerequisite: Philosophy and Religion 101 or 201. Study of the Dialogues of Plato. Analysis of texts; contemporary interpretations. Three hours each week.

P&R 303. Aristotle (3) Prerequisite: Philosophy and Religion 101 or 201. An examination of Aristotle's philosophy through selected texts, supplemented with contemporary criticisms. Aristotle's criticisms of Plato; problems of interpretation. Three hours each week.

P&R 305. Medieval Philosophy (3) A survey of Islamic, Jewish and Christian philosophical thought in medieval times. Readings from such thinkers as Augustine, Avicenna, Averroes, Maimonides and Thomas Aquinas. Three hours each week.

P&R 310. (Political Science 310) Legal Philosophy and Jurisprudence (3) Prerequisite: Junior standing and/or the consent of instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include: Natural law; historical, analytical and sociological jurisprudence; idealism, utilitarianism and legal realism; equity, justice, precedent, custom and law, and the relation of law and morality. Three hours each week.

P&R 313. Social and Political Philosophy (3) Prerequisite: Philosophy and Religion 101, 115, or consent of instructor. An exploration of philosophical issues and concepts central to an understanding of social and political life, e.g., function and cause, justice, liberty, equality, societal facts and laws, utopias, reason and political argument, political obligation and the public interest. Three hours each week.

P&R 316. The Philosophy of Art (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Investigation and exploration into both traditional and contemporary theories regarding the philosophy of art and its associated problems. Visual Arts, such as painting, sculpture, film, etc., will be examined. Three hours each week.

P&R 317. Epistemology (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues in theory of knowledge: nature of knowledge; reasoning, judgment; truth, certainty and probability. Three hours each week.

P&R 318. Metaphysics (3) Prerequisite: Philosophy and Religion 101 or 201-202. Fundamental issues and positions concerning the nature of reality: theories of being, substance, causality. Three hours each week.

P&R 320. Philosophy of Mind (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Selected readings drawn from classical and/or contemporary sources bearing on problems of the self, such as the issue of personal identity and the concept of a person, the problem of the relation of mind and body and the question of the nature of consciousness. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 345. Philosophy of Science (3) Prerequisite: Philosophy and Religion 101 or consent of instructor. Fundamental issues in the philosophy of science; the nature of scientific method; modes of verification and the role of paradigms. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior or senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors in junior or senior year; open to qualified non-majors.

P&R 401. The Philosophy of Immanuel Kant (3) Prerequisite: Philosophy and Religion 101 or 202. An examination of the thought and influence of Kant in his three great critiques, especially the first, *the Critique of Pure Reason,* as well as in his *Groundwork of the Metaphysics of Morals.* Three hours each week.

P&R 405. Contemporary Philosophical Thought (3) Prerequisite: Philosophy and Religion 101 or 202. Primary source study of the various philosophers of the 20th century, representing the major schools or movements. Three hours each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary sources of student-selected philosophic and/or religious problems. Three hours each week.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

Religion Course Descriptions

(Department of Philosophy and Religion)

P&R 103. Introduction to Religion (3) Religion as a field of study; major modes of religious expression; chief issues in religious thought and experience; the search for method since the Enlightenment critique; contemporary developments. Three hours each week.

P&R 140. Research Tools for Historical and Textual Criticism—Hebrew (3) Basic study of the Hebrew language with special attention to that of the Old Testament. Three hours each week.

P&R 141. Research Tools for Historical and Textual Criticism—Greek (3) Basic study of the Greek language with special attention to that of the New Testament. Three hours each week.

P&R 230. Judaism, Christianity and Islam (3) Survey of the three major Abrahamic faiths; the origins, beliefs and practices of these "people of the Book;" history of their interactions and influence on Western culture. Three hours each week.

P&R 231. Primitive and Classical Religions (3) A survey of primitive religion as revealed both in archaeological research and remaining primitive customs; examination of classical faiths of Egypt, Mesopotamia and ancient Europe. Three hours each week.

P&R 232. Asian Religions (3) A survey of Hinduism, Buddhism, Taoism, and Confucianism; historical aspects, basic insights, contemporary relevance. Three hours each week.

P&R 235. Introduction to the Old Testament (3) Historical study of the Hebrew, Canaanite, Sumerian, Babylonian, and Egyptian cultures, based upon primary literary and archaeological sources. Three hours each week.

P&R 236. Introduction to the New Testament (3) Historical survey of the canonical Christian literature; illustration of contemporary methods of text-criticism, literary-criticism, form-criticism, and redaction-criticism; focus on results of modern scholarship in appreciating the Gospels and their function in the early Christian community. Three hours each week.

P&R 238. History of Christianity I: Early and Medieval (3) Survey of the basic development of the Christian church from its foundation to the Protestant Reformation. Emphasis on major thinkers and pivotal events that determined the historical trends. Three hours each week.

P&R 240. History of Christianity II: Modern (3) Survey of the history of Christianity from the Reformation to the present. Accent on the contributions of the chief theologians and the particular problems raised by "modernity" since the 17th century. Three hours each week.

P&R 242. Religion in America (3) A survey of religious thought from colonial times to the present; representative Protestant, Catholic, and Jewish thinkers; the phenomenon of "civil religion," church involvement in social and political issues. Three hours each week.

P&R 243. Afro-American Religion (3) Study of the religious life of black American communities, with concentration on independent traditions, sects, cults, and a sampling of major thinkers and issues. Three hours each week.

P&R 247. Hinduism (3) A survey of Hindu religion and philosophy over its three thousand year history. Examines myths, philosophies, rituals, meditation teachings, and social thought. Three hours each week.

P&R 255. Historical Geography of Middle East (Biblical Era) (3) Prerequisite: Geography 145 or Philosophy and Religion 235 or consent of instructor. Geographical, archaeological, historical, and geological investigation of the physical environment and cultural landscapes that provide the settings for the evolution of the population, economics, and cultures of southwestern Asia. Three hours each week.

P&R 334. Old Testament Literature (3) Analysis and interpretation of a particular part of the Hebrew Scriptures. Topics will vary from one course offering to another. (The Torah; the Prophets; the Writings). Three hours each week.

P&R 336. New Testament Literature (3) Analysis and interpretation of a particular part of the New Testament. Topics will vary from one course offering to another. (The Gospels; the Acts of the Apostles; the Johannine works; the Letters of Paul). Three hours each week.

P&R 337. Apocrypha and Pseudepigrapha (3) Prerequisite: Philosophy and Religion 235 or 236. Analysis of the major Jewish and Christian writings related to but excluded from the Bible, including histories, apocalypses, testaments, prayers, moral tales, and wisdom books. Three hours each week.

P&R 339. Psychology of Religion (3) A history of the interaction of modern psychology with the Western religious tradition from William James to the present; Freud and Jung, Allport and Menninger, Tillich and May, Hiltner and Pruyser, on such areas as faith and doubt, prayer and prejudice, symbol and guilt, authority and integration of personality. Three hours each week.

P&R 340. Philosophy of Religion (3) Prerequisite: Philosophy and Religion 101 or 103. Examination of the basic problems found in Western philosophy concerning religion, including efforts to prove the existence of God, the role of faith and reason, the problem of evil, immortality, religious experience, religious language, and religious pluralism. Three hours each week.

P&R 352. Southern Religion (3) A study of religion in the Old South until 1865. Topics include: revivalism; the system of slavery; the Southern way of life; and the religious beliefs and practices of blacks and whites. Three hours each week.

P&R 400. Colloquium for Majors (3) Prerequisite: Junior and senior standing. An interdisciplinary investigation of various philosophical and religious questions. Themes for study: the problem of evil, the relations of faith and reason, symbolism and language, meaning of freedom, and concepts of determinism. Required of majors. Three hours each week.

P&R 421. Contemporary Religious Thought (3) Prerequisite: Philosophy and Religion 103. Primary source study of principal religious thinkers of 20th century, especially within Judaism and Christianity. Three hours each week.

P&R 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

P&R 495. Seminar (1-3) Prerequisite: Credit in Philosophy and Religion and consent of department. Research in primary source of student-selected philosophic and/or religious problems.

P&R 499. Honors Work in Philosophy (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

PHYSICAL EDUCATION

(See Health, Physical Education and Recreation)

PHYSICS

Dr. Alexanian, *Chairman*. Dr. Clator, Dr. Davis, Dr. Haywood, Dr. Hernandez, Dr. Olszewski.

Requirements for a concentration in Physics for the B.A. degree:
Physics 201-202, 215, 225, 260, 321, 335, 400 (1 semester hour), 495, and two 300-400 level Physics courses; Chemistry 101- 102 with lab; Mathematics 161-162 and 261.
A "C" or better on each Physics course.

Requirements for a concentration in Physics for the B.S. degree:
Physics 201-202, 215, 311-312, 321-322, 335, 345, 400 (3 semester hours), 411-412, 455, 495, and two of the following: 415, 425, 435, or 445; Chemistry 101-102 with lab; Mathematics 335, 361 and one additional three semester hour Mathematics course at the 300-400 level.
A "C" or better on each Physics course.
Note: Students interested in the B.S. degree in Physics are advised to take the Physics 201-202 sequence in the freshman year.

Physics Course Descriptions

PHY 101-102. Elementary College Physics (4-4) Corequisite: Mathematics 111. Mechanics, heat, sound, light, electricity and magnetism, and introduction to modern physics. Three lecture and two laboratory hours each week.

PHY 105. Introductory Physics (4) Terminal course designed to cover basic principles of physics. Three lecture and two laboratory hours each week.

PHY 107. Physics of Music (4) Study of the scientific basis of music. Three lecture and two laboratory hours per week.

PHY 170. Photography (3) Techniques and procedures in the use of photographic materials and equipment. Two lecture and two laboratory hours each week.

PHY 201-202. General Physics (5-5) Corequisite: Mathematics 161-162. 201: Mechanics, heat, wave motion and acoustics. 202: Electrostatics, magnetism, circuits, electrodynamics, optics, atoms, electrons, radioactivity and nuclear physics. Four lecture and two laboratory hours each week.

PHY 206-207. Problems in General Physics (2-2) Prerequisite: Physics 101-102 and corequisite: Mathematics 161-162. Problems in general physics and their applications. Two problem sessions each week.

PHY 215-216. Electric Circuits (4-4) Corequisite: Mathematics 161. Fundamental laws of electric circuits; transient and steady-state sinusoidal analysis of linear circuits by complex frequency; phasor and two-port networks. Three lecture and three laboratory hours each week.

PHY 225. Electronics (3) Prerequisite: Consent of instructor. An introduction to electronics with emphasis on instrumentation and techniques used in scientific laboratories. Two lecture and two laboratory hours each week.

PHY 260. Introduction to Astronomy (3) Descriptive course in principles, theories, and techniques of astronomy. Three lecture hours each week and occasional night viewing.

PHY 305. Science for Elementary Teachers (3) Open only to students concentrating in elementary education and to in-service teachers. Biological and physical science areas appropriate for inclusion in elementary schools. Three hours each week.

PHY 311-312. Mathematical Physics (3-3) Prerequisite: Physics 202. An introduction to the mathematical techniques useful in physics: vector analysis, operator and matrix analysis; functions of a complex variable and calculus of residues; differential equations, special functions of mathematical physics; Fourier series and transforms, eigenfunctions and Sturm-Liouville equation; Green's functions; variational methods; and perturbation theory. Three hours each week.

PHY 321-322. Mechanics (3-3) Prerequisite: Physics 202. Elements of Newtonian mechanics, mechanics of continuous media, Lagrange's equation, rotation of a rigid body. Three hours each week.

PHY 335. Introduction to Modern Physics (3) Prerequisite: Physics 202. Survey of modern atomic and nuclear physics, including historical development, relativity, and wave mechanics. Three hours each week.

PHY 345. Quantum Mechanics (3) Prerequisite: Physics 335 and corequisite: Mathematics 361. An introduction to the basic principles of quantum mechanics. Topics include operators; symmetry; orbital and spin angular momentum; and applications to simple systems. Three hours each week.

PHY 400. Advanced Laboratory (1) (May be repeated for up to three hours credit) Prerequisite: Consent of instructor. Designed to acquaint students with the various laboratory techniques, error analysis and reduction of data by digital computer. One hour each week.

PHY 411-412. Electricity and Magnetism (3-3) Prerequisite: Physics 202 and corequisite: Mathematics 261. Electric and magnetic field theory; Poisson's and Laplace's equation; harmonic methods, special methods for solution of electrostatics problems, material media and boundary value problems; electromagnetic waves and radiation; electromagnetic laws of optics. Three hours each week.

PHY 415. Solid State Physics (3) Prerequisite: Physics 335. A study of the basic properties of solids—crystal structure; mechanical, thermal and electromagnetic properties as determined by the phonon, electron, and magnon characteristics. Three hours each week.

PHY 425. Atomic and Molecular Physics (3) Prerequisite: Physics 345. The quantum theory of atomic and molecular structure and spectra. Topics include relativistic and electromagnetic interactions; the hydrogen atom, the helium atom, multielectron atoms; radiative and Auger transitions, selection rules; diatomic and simple polyatomic molecules. Three hours each week.

PHY 435. Nuclear Physics (3) Prerequisite: Physics 345 or consent of instructor. Introduction to properties of the nucleus; natural and artificial radioactivity; nuclear reactions and particle accelerators. Three hours each week.

PHY 445. Optics (3) Prerequisite: Physics 202 and Mathematics 261. Physical and geometrical optics. Huygen's principles, electromagnetic theory of light. Three hours each week.

PHY 455. Thermal Physics (3) Prerequisite: Physics 335 or consent of instructor. Principles of thermodynamics and heat transfer; response of molecules to temperature effects illustrated by introduction to kinetic theory and statistical mechanics. Three hours each week.

PHY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PHY 495. Physics Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in physics.

PHY 499. Honors Work in Physics (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent study for honors students.

For 292 and 492, see explanation on p. 70.

POLITICAL SCIENCE

Dr. Dixon, *Chairman*. Dr. Ahmad, Dr. Johnston, Dr. Jones, Dr. Lowery, Dr. Sheridan, Dr. Wagoner.

Requirements for a concentration in Political Science for the B.A. degree: Thirty-six hours of Political Science which must include 101-102, 111, 210 and 211. Eighteen hours must be at the 300-400 levels and at least one 300-400 level course must be taken in each of the following sub-fields: American Government and Politics, Political Theory and Methodology, International Relations, and Comparative Government.

A "C" or better average on all 300-400 level Political Science courses.

Required collaterals: Twenty-four hours selected from at least four of the following disciplines: Anthropology, Economics, Environmental Studies, Geography, History, Psychology, and Sociology. In addition, a research skill is required. This can be demonstrated by either of the following methods: passing the Statistics in the Social Sciences course offered by the Mathematical Science Department or passing six semester hours in one of the modern foreign languages.

Students planning to do graduate work are urged to study a modern foreign language and acquire a basic knowledge of Computer Science, Statistics and Mathematics through the calculus.

Political Science Course Descriptions

(Department of Political Science)

PLS 101-102. American National Government (3-3) 101 focuses upon basic principles, institutions and functions such as federalism, separation of powers, civil liberties, and judicial review. 102 introduces the political environment of public opinion, political parties and interest groups and traces its impact upon national policy areas, such as civil rights, the economy, and national defense.

PLS 111. Politics and Government in Global Perspective (3) A survey from a cross-national, comparative perspective of politics and governmental institutions within and among nation-states. Attention will also be given to the role of political theory and ideology in the governance of states. Three hours each week.

PLS 202. Contemporary Political Issues (3) A critical examination of selected contemporary domestic and international policy issues. Three hours each week.

PLS 206. American State Government and Politics (3) A survey and analysis of the organization, functions, and political processes of the American states. Three hours each week.

PLS 207. American Urban Government and Politics (3) A study of the structure, functions, political processes, problems and trends in American city and metropolitan government and politics. Three hours each week.

PLS 210-211. Research Methods in Political Science (3-3) An introduction to the rationale and application of basic methods of political research. PLS 210 focuses on library research, the information sources of government and politics and how to use them. PLS 211 introduces quantitative methods – the principles, applications, and limitations of statistical and computer analysis of political phenomena. Three hours each week.

PLS 300, 301. American Constitutional Law (3,3) Prerequisite: Political Science 101. Analytical study of U.S. Supreme Court decisions affecting separation of powers and individual rights. 300: the powers of the judicial, executive, and legislative branches of national government; the relationships among these branches; and the federal system. 301: individual rights and liberties other than procedural rights of persons involved with the criminal justice system. Three hours each week.

PLS 302. Public Opinion and Democracy (3) Prerequisite: Political Science 211 or consent of instructor. An examination of the origin, content, and policy impact of public opinion in democratic nations, with major emphasis on the contemporary American experience. Three hours each week.

PLS 303. Elections and Voting Behavior (3) Prerequisite: Political Science 211 or consent of instructor. An evaluation of the impact of citizen beliefs and preferences on election outcomes. The course is structured around a critical examination of the assumptions, findings and interpretations of the major voting studies since World War II. Three hours each week.

PLS 304. Introduction to Public Policy Analysis (3) Prerequisite: Political Science 101. A study of the theories and methods of analyzing and explaining public policy and the substance of recent domestic policies in the areas of public finance and human and physical resources, including welfare, education, protection of the environment, housing, health, urban renewal and transportation.Three hours each week.

PLS 305. The Constitution and the Criminal Justice System (3) Prerequisite: Political Science 101. Study of U.S. Supreme Court decisions on rights of suspects, defendants, witnesses, and convicted criminals. Three hours each week.

PLS 307. The American Legislature (3) Prerequisite: Political Science 101. Functional study of legislative bodies and lawmaking. Among the topics studied will be the role of legislatures; the impact of constituencies, parties, interest groups, interpersonal relationships and other pressures on legislators; legislative structure; and the decision-making process. Three hours each week.

PLS 308. Public Administration (3) Prerequisite: Political Science 101. Introduction to public administration in the United States. Nature and scope of public administration, public interest in the administrative process, role of administrators, formal and informal organization, public personnel and financial management. Three hours each week.

PLS 309. **The American Chief Executive (3)** Prerequisite: Political Science 101. An examination of the concept of a political chief executive as a coordinate member, with legislature and courts, of a government team. Emphasis will be placed on the powers, roles, decision-making processes, and institutional development of the offices of president, governor, and mayor. Three hours each week.

PLS 310. **(Philosophy 310) Legal Philosophy and Jurisprudence (3)** Prerequisite: Junior standing and/or consent of the instructor. An introduction to the nature, concept and sources of law and the various schools of jurisprudence. Topics treated include natural law; historical, analytical and sociological jurisprudence; idealism; utilitarianism; legal realism; equity, justice, precedent, custom and law; and the relation of law and morality. Three hours each week.

PLS 311. **(Sociology 311) Techniques of Public Opinion Polling (3)** Prerequisite: Political Science 211 or consent of instructor. Basic skills in all phases of public opinion polling; issue focus; questionnaire construction; sample selection, interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills. Three hours each week.

PLS 312. **Scope and Methods of Political Science (3)** Prerequisite: Political Science 102, 111, and 211. A synthesis of the theoretical questions, techniques, and approaches in the sub-fields of Political Science, e.g. American Politics, Comparative Politics, International Relations, Political Behavior, Public Law and Political Theory.

PLS 313. **Early Political Thought (3)** An introduction to the origin and development of political theory from the 5th Century B.C. through the medieval era. Emphasis will be placed on the political ideas of Plato, Aristotle, the Epicureans, the Stoics, Cicero, Augustine, medieval philosophers, and Aquinas in order to discover the recurring themes of political inquiry. Three hours each week.

PLS 314. **Modern Political Thought (3)** A critical examination of political ideas from 1500 to 1900 with special attention to those of Machiavelli, Hobbes, Locke, Rousseau, Montesquieu, Hume, Burke, Hegel, Bentham, Marx, the Mills, Spencer, T. H. Green and Nietzsche. Three hours each week.

PLS 315. **Contemporary Political Ideologies (3)** A study of the concept of ideology and its significance in the modern world. Systematic analysis of the major political ideologies of the 19th and 20th centuries with emphasis on democracy, communism, fascism, nationalism, anarchism, and the New Left. Three hours each week.

PLS 316. **Women and Politics (3)** Prerequisite: Political Science 111 or 101 or consent of instructor. An introduction to political perspectives on sex role differentiation. Among the topics to be discussed will be political socialization of women in ancient and modern society; women's roles in politics and government; political consequences of women's entry into the work force; and contemporary issues in the women's movement. Emphasis will be placed throughout on comparative political analysis. Three hours each week.

PLS 330. **Political Systems of Africa (3)** The governments and politics of selected sub-Saharan African states. A survey from colonial days to the present with emphasis on contemporary economic, social and political problems. Three hours each week.

PLS 331. Politics in Developing Nations (3) An examination of the political, economic, and social problems confronting developing nations. Attention will be given to such issues as cultural pluralism, one-party states, military dictatorships, and U.S. relations with the developing world. Three hours each week.

PLS 335. European Political Systems (3) Political institutions and processes of selected European countries, including Great Britain, France and Germany. Three hours each week.

PLS 336. Political Systems of the Soviet Union and Eastern Europe (3) A comparative study of the political institutions and processes of the Soviet Union and the eastern European countries; the post-Stalin dynamics and the nature and significance of contemporary changes. Attention will be given to their foreign relations, especially with Communist China. Three hours each week.

PLS 338. Political Systems of the Middle East (3) The governments and politics of the Middle East with emphasis on the changes that have occurred since 1945. A detailed examination of the forces that have shaped contemporary Middle Eastern politics: Islam, nationalism, modernization, and current political trends. The political institutions and processes and the domestic and foreign policies of selected countries will be studied. Three hours each week.

PLS 339. Political Systems of Asia (3) The political systems of selected Asian countries. Special emphasis on the contemporary political, social and economic problems of India, Pakistan, Japan, China, Indonesia and other Asian countries. Three hours each week.

PLS 340. Blacks in American Politics (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A study of American political institutions and processes through the eyes of Black America. This study will analyze the power structure in the black community, dissent and protest, black participation in the political system, black leaders and politicians and their politics, and the uniqueness of black politics as compared with the wider spectrum of the political system. Three hours each week.

PLS 405. American Parties and Pressure Groups (3) Prerequisite: Political Science 211 or consent of instructor. An historical and analytical treatment of the appearance and realignment of political parties during the five successive "national party systems" since the beginning of the republic. Special emphasis is given to the question of contemporary party disarray and potential realignment. Three hours each week.

PLS 406. Contemporary Southern Politics (3) Political Science 211 or consent of instructor. An examination of recent developments throughout the American South and their impact on national politics. Topics covered include southern political culture, the decline of the one-party system, and the changing roles of blacks and organized labor. Emphasis is placed upon independent research projects involving student analysis of census, election return, and public opinon survey data. Three hours each week.

PLS 407. The American Judicial Systems (3) Prerequisite: Political Science 101. Analysis of the organization, powers and role of the judiciary. Topics studied will include the political role of American judges, factors influencing judicial policy-making, selection of judges, the role of lawyers, and socio- metric relationships within the judiciary. Three hours each week.

PLS 415. American Political Thought (3) American political thought from the colonial period to the present. Three hours each week.

PLS 422. Contemporary American Foreign Policy (3) Prerequisite: Political Science 101 or 111. The roles and interrelationships of Congress, the media, public opinion, the President, the Secretaries and Departments of State and Defense, and the intelligence community are examined. Emphasis is placed on the content and the dynamic aspects of the process of policy formulation and implementation. Three hours each week.

PLS 423. National Security Policy (3) Prerequisite: Political Science 101. A study of formulation of security policy, including the roles of the executive and legislative branches and of non-governmental factors; evolution of changing assumptions, strategies, and goals; the nature of U.S. security requirements, U.S. military commitments abroad, and the cost of strategies based on weapons superiority, arms control, and disarmament.

PLS 425. International Politics (3) Nature of international relations including analyses of basic factors motivating national policies; the United Nations and other international organizations as institutions for promoting peace and welfare in a world of sovereign states. Three hours each week.

PLS 426. International Law (3) Prerequisite: Political Science 101. Nature, development and basic concepts of international law. Examination of the scope, sources and sanctions of international law; its relation to municipal law; the rights and duties of states and individuals; methods of settling international disputes. Characteristic cases used as illustrations. Three hours each week.

PLS 427. International Organizations (3) Prerequisite: Political Science 111 or 101 or consent of instructor. A survey of the evolution, objectives and methods of various types of regional and universal organizations and their role in contemporary international relations. Special emphasis will be placed on the principal functions and agencies of the United Nations and the European economic community. Three hours each week.

PLS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PLS 495. Departmental Seminar (1-3) Prerequisite: Six hours of Political Science and consent of department chairman. Consideration of special topics in Political Science. May be repeated for additional credit.

PLS 498. Internship in Political Science (3-6) Prerequisite: Political Science 111, 101, 211, and at least one of the following: Political Science 300, 304, or 308. This course is open only to persons taking a concentration in political science who are classified as juniors or seniors. The internship involves an experiential learning situation in selected public or private agencies or with an individual which allows the student to utilize academic training while learning from a practical field experience. A formal research project is a major part of the internship.

PLS 499. Honors Work in Political Science (2-3) Prerequisite: Eligibility for honors program and junior or senior standing. Individual study for honors students.

For 292 and 492, see explanation on p. 70.

PSYCHOLOGY

r. Williams, *Chairman*. Dr. Applefield, Dr. Bradley, Dr. Brown, Dr. Bruce, Dr. Galizio, Dr. ackson, Dr. Johnson, Dr. Kishton, Dr. Kowal, Dr. Lakey, Dr. Lamb, Dr. Newton, Dr. verman, Dr. Phillips, Dr. Pilgrim, Dr. Puente, Dr. Sanders.

Requirements for a concentration in Psychology for the B.A. degree: Psychology 05, 225, 355, 405, one course from each of the six categories listed below, and nine dditional hours in Psychology courses at the 300-400 level. Category 1: Psychology 220, 21, 320, 323 or 324. Category 2: Psychology 410, 412, or 417. Category 3: Psychology 18, 456 or 457. Category 4: Psychology 346, 347 or 365. Category 5: 336, 337 or 425. ategory 6: Psychology 350, 352, 422, or 450. No more than one course with a grade of D" can count toward the requirements for a concentration in Psychology, and there must e a "C" or better average across all courses attempted within the department. Twelve ours of collaterals, approved by the department, are required.

Psychology Course Descriptions

SY 105. General Psychology (3) Principles of psychology with emphasis on scientific methods used in studying human behavior. Three hours each week.

SY 110. Self-Management and Self-Motivation (3) Techniques and concepts to provide knowledge, skills, and attitudes to improve performance. Development in coping skills, including determination and modification of motivation, self-management and time-management skills, and efficient methods of learning and organizing materials and solving problems. (Not for Social Science General Degree requirement or Psychology major credit.)

SY 145. Psychology Applied to Human Life (3) A study of psychological principles and findings as applied to particular fields of endeavor and to various stress situations. Primary emphasis will be on the problem of human adjustment. Three hours each week.

SY 216. Educational Psychology (3) Prerequisite: Psychology 105 is suggested. Study of the application of psychological theories and principles in educational settings. Three hours each week.

SY 220. Child Psychology (3) The study of human psychological development through childhood and early adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

SY 221. Adolescent Psychology (3) The study of human psychological development from late childhood through adolescence. Normal development is emphasized with discussion of problem areas and other influences upon such development. Three hours each week.

SY 225. Introductory Statistics for the Behavioral Sciences (4) Prerequisite: Psychology 105 and three credit hours in mathematics. Introduction to the statistical techniques most often used by behavioral scientists for either descriptive purposes or hypothesis testing. Parametric techniques are emphasized, but nonparametric tests are included. Three lecture and two laboratory hours each week.

PSY 245. Drugs and Behavior (3) Prerequisite: Three semester hours credit in Psychology. An examination of the psychological aspects of drug use and abuse. Emphasis will be on the effects of major psychoactive drugs (including alcohol) on behavior, the psychological determinants of drug use, and treatment of drug abuse. Three hours each week.

PSY 262. Psychology of Consciousness (3) Prerequisite: Psychology 105. A study of the mental processes which occur during various states of human consciousness such as sleep, biofeedback and meditation. Emphasis on the research and theories of brain processes during states of consciousness. Three hours each week.

PSY 265. Human Sexual Behavior (3) Prerequisite: Three hours of Psychology, excluding Psy 110. Examination of the psychological aspects of human sexuality with emphasis on psychosexual development and behavior. Includes discussion of causative factors and treatment of sexual disorders and deviations. Three hours each week.

PSY 275. Psychology of Sex Differences (3) Prerequisite: Psychology 105 or 145. An examination of biological and learned determinants of sex-typed behaviors, current research findings on sex-typed habits and attitudes, and their implications for interpersonal relationships and personal adjustment. Three hours each week.

PSY 311. Psychology of Language (3) Prerequisite: Psychology 105. An introduction to theory and research concerning human language use. Topics will include the nature of human linguistic competence, the perception of speech, the comprehension of speech, memory for verbal information, the production of speech, and the biological basis of human language. Three hours each week.

PSY 320. Developmental Psychology (3) Prerequisite: Psychology 105 or 220. Examination of various areas of behavior (motor, social and intellectual) and theoretical explanations of their development. Emphasis on underlying psychological and biological processes. Three hours each week.

PSY 322. Psychology of Exceptional Children (3) Prerequisite: Psychology 105 or 220. A study of the physical, cognitive, and personality characteristics of the major types of childhood exceptionality, including high intelligence and creativity, mental retardation, learning disabilities, emotional disorders, language impairments, and sensory and physical handicaps. Issues such as assessment, etiology, family relations, and treatment will be discussed. Three hours each week.

PSY 323. Lifespan Human Development (3) Prerequisite: Three hours in Psychology. An exploration of the variables and factors underlying human growth and development across the lifespan. Physical, cognitive, social, emotional, and sexual development are emphasized. Three hours each week.

PSY 324. Psychology of Adulthood and Aging (3) Prerequisite: Three hours in Psychology, excluding Psy 110. A developmental approach to the portion of the lifespan from young adulthood through sensescence. Emphasis on the interaction of psychological, psychosocial and physiological aspects of development. Three hours each week.

PSY 336. Industrial Psychology (3) Prerequisite: Psychology 105. The study of psychological techniques in personnel selection and placement, merit rating, reduction of accidents, training, morale, and other factors utilized in industrial work. Three hours each week.

PSY 337. Vocational Psychology (3) Prerequisite: Psychology 105 or permission of instructor. The study of individual vocational behavior and development. Topics include the history of vocational psychology, theories of vocational development and choice, as well as stimulus, organismic, and response variables correlated with the choice process. Attention is directed toward theories and research concerning the meaning of vocational motivation and vocational adjustment, as well as the prediction of vocational success and satisfaction. Systems for defining vocational problems are included. Three hours each week.

PSY 346. Psychology of Personality (3) Prerequisite: Psychology 105. A study of the basic facts concerning the structure, organization, and adjustmental mechanisms of personality. Three hours each week.

PSY 347. Psychopathology (3) Prerequisite: Psychology 105. The study of behavioral pathology. Emphasis will be placed on the underlying factors of the neuroses, psychoses, and character disorders. Three hours each week.

PSY 350. Principles of Behavioral Change (3) Prerequisite: Psychology 105. Application of the principles of behavioral control in interpersonal, educational, and clinical settings. Primary emphasis will be on behavioral modification techniques such as contingency management, desensitization, biofeedback, etc.

PSY 352. Behavioral Medicine (3) Prerequisite: Psychology 105 or 145. Integrates psychological and biomedical knowledge relevant to physical health and illness. Describes the interaction of psychological phenomena with the epidemiology, etiology, pathogenesis, treatment, and rehabilitation of physical disorders. Three hours each week.

PSY 355. Introduction to Experimental Psychology (4) Prerequisite: Psychology 225. Basic principles of psychological research design and evaluation, including techniques of data collection and analysis, and conduct, interpretation, and reporting of various types of psychological research. Experimental research is emphasized. Three lecture and three laboratory hours each week.

PSY 365. Social Psychology (3) Prerequisite: Psychology 105. The study of individual human behavior as a function of the influence of other persons. Emphasis on the psychology of person perception, interpersonal communication and relationships, attitude formation and change, and small group behavior. Three hours each week.

PSY 366. Psychology of Marriage and Family (3) Prerequisite: Three hours of Psychology. The study of personality development within the marriage and family including recent theoretical and empirical findings on courtship, interpersonal attraction, marriage contract, and the various stages of the family life cycle. Communication, familial functioning and dysfunctioning are emphasized. Three hours each week.

PSY 370. (Environmental Studies 370) Environmental Psychology (3) Prerequisite: Psychology 105. The study of the effects of the physical environment on the behavior of the individual. Emphasis will be placed on man's perception of his environment, the behavioral effects of noxious factors in the environment, the psychology of environmental design, and the formation and change of attitudes about the environment. Three hours each week.

PSY 405. History and Systems of Psychology (3) Prerequisite: Fifteen semester hours credit in psychology. History of psychology relative to current trends. Three hours each week.

PSY 410. Cognitive Psychology (4) Prerequisite: Psychology 355. Introduction to theories and research related to human cognition. Memory, attention, problem solving, and thinking are emphasized. Three lecture and three laboratory hours each week.

PSY 412. Sensation and Perception (4) Prerequisite: Psychology 225 and 355 or consent of instructor. Survey of sensory and perceptual processes, techniques for measuring sensations and perceptions, and theories of perception. Psychological, anatomical, physiological, and environmental factors important in determining how we perceive the world are examined. Demonstrations will introduce students to interesting perceptual phenomena. Three lecture and three laboratory hours each week.

PSY 417. Psychology of Learning (4) Prerequisite: Psychology 355. Study of the basic facts related to the learning process. Effects of reinforcement, extinction, generalization and discrimination, verbal learning and retention, as well as other phenomena, are considered. Three lecture and three laboratory hours each week.

PSY 418. Motivation and Emotion (3) Prerequisite: Psychology 105. Psychological theory and research in the areas of motivation and emotion. Basic as well as more complex motive states will be examined as they arise from physiological needs and from learning and cognitive processes. Data from animal as well as human studies will be considered. Three hours each week.

PSY 422. Child Psychopathology (3) Prerequisite: Psychology 105 and either Psy 220, 322, or 420. Advanced study of child psychopathology emphasizing behavioral, biological, and psychodynamic approaches. The major disorders of childhood will be compared in terms of etiology, manifestations, and treatments. Low incidence and multiple-handicapping conditions will also be considered. Three hours each week.

PSY 425. Psychological Tests and Measurements (4) Prerequisite: Psychology 105 and 225 or consent of instructor. Introduction to theory and practice of test construction, including a survey of intelligence, achievement and personality tests and their applications. Three lecture and two laboratory hours each week.

PSY 449. Psychology of Death (3) Prerequisite: Psychology 105. A study of psychological aspects of death and dying. Man's conceptualization of and behavior toward his own demise will be studied. Special emphasis will be placed on the behavioral context surrounding terminal illness, suicide, and homicide. Psychological aspects of gerontology will also be considered. Three hours each week.

PSY 450. Introduction to Counseling (3) Prerequisite: Psychology 346 and 347. The major historical and contemporary theories of counseling including Freudian, client-centered, behavioristic and existential will be reviewed. Examination of each theory will be accompanied by demonstration and role-play situations in which the elements of each theory are explored. Three hours each week.

PSY 451. Supervised Counseling Practice (3) Prerequisite: Psychology 450 and consent of instructor. This course will provide for supervision of student practice in application of counseling skills and techniques in a variety of in-service situations.

The student will participate in supervised counseling experiences in local social service agencies. The emphasis will be upon practice of skills combined with regular consultation with the supervisor. May be repeated once for additional credit. Three hours each week.

PSY 452. Ethical Principles in Psychology (1) Prerequisite: Permission of the instructor. A study of the ethical considerations involved in counseling and psychotherapy, psychological testing, and the use of human subjects in research.

PSY 455. Advanced Psychological Research (3) Prerequisite: Psychology 355 and consent of instructor. Experience in the design, conduct, and evaluation of psychological research. Advanced design and analysis techniques. Each student designs and conducts a research project and a laboratory exercise for Psychology 355. Three hours each week. Offered on demand.

PSY 456. Physiological Psychology (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of the anatomy of the nervous system and the roles which various neural structures play in the control of behavior. Three hours each week.

PSY 456-51. Methods in Physiological Psychology (1) Prerequisite or corequisite: Psychology 456. A study of basic mammalian neuroanatomy and methodology of physiological psychology. Gross anatomy of the brain is taught by using sheep brains, slides and tape series. Includes demonstrations of brain research methods such as small animal surgery, brain stimulation and recording, and preparation of brain tissue for microscopic examiination. Two laboratory hours each week.

PSY 457. Animal Behavior (3) Prerequisite: Psychology 105 and Biology 105 or consent of instructor. A study of animal behavior including the traditional areas of ethology and comparative psychology. Primary emphasis is upon the similarities and differences in the behaviors of animals occupying various phyiogenetic positions. Three hours each week.

PSY 457-51. Animal Behavior Laboratory (1) Prerequisite or corequisite: Psychology 457. Laboratory exercises in animal behavior, including both field and traditional laboratory techniques. Three laboratory hours each week.

PSY 465. Community Psychology (3) Prerequisite: Psychology 105. Psychology 365 is suggested. A study of the contributions of psychology to the understanding of an individual's behavior as influenced by his community environment. A major consideration will be given to the problems associated with community mental health. Three hours each week.

PSY 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PSY 495. Topical Seminar (1-3) Prerequisite: Psychology 105 and consent of instructor. Discussion of selected topics in psychology. May be repeated for additional credit.

PSY 499. Honors Work In Psychology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 70.

RECREATION

(See Health, Physical Education and Recreation)

SOCIAL SCIENCE

(Interdepartmental)

Participating disciplines: Anthropology, Earth Sciences, Political Science, Psychology, Sociology.

Requirements for a concentration in Social Science for the B.A. degree: Fifty-one hours in the Social Sciences, with a minimum of 30 hours in courses above 299. At least one course is required in each of the five participating disciplines, or at least one course required in four disciplines with an additional course in Economics. A minimum of 21 hours is required in the primary concentration area, with at least 15 of these hours in courses above 299. A minimum of 12 hours is required in each of two secondary concentration areas. At least six additional hours in Social Science are required.

Additional required courses include: a Research Methods course, the discipline of this course to be decided by the advisor and the student (3 hours); an appropriate Statistics course (3 hours); a two-course History sequence, or an appropriate pairing to be decided by the advisor and the student (6 hours). A Computer Science course is recommended, but not required. At least a 2.0 grade point average in the Social Science concentration must be attained.

A faculty member within the area of primary concentration shall serve as the student's advisor. Note: The primary concentration area may not serve as a discipline in a double major.

SOCIOLOGY AND ANTHROPOLOGY

Dr. Sabella, *Chairman.*

The Department of Sociology and Anthropology is comprised of Anthropology, Criminal Justice, Social Work and Sociology. The baccalaureate degree is offered in both Sociology and Anthropology.

Anthropology

Dr. Lerch, Dr. Lottfield, Dr. McCall, Dr. O'Meara, Dr. Sabella.

Requirements for a concentration in Anthropology for the B.A. degree: Anthropology 206, 207, 207-51, 210, 345, 450 and 21 additional hours comprised of two courses from each of the first three subfields listed below and one from the linguistics group. Physical: 320, 322, 324, 430. Archaeology: 307, 311, 312, 411. Cultural: 301, 302, 303, 304, 305, 306, 309, 317, 350. Linguistics: 208, Psychology 311, English 320, 322. Although no collateral courses are required, students contemplating a professional career in anthropology are urged to study a foreign language and acquire basic skills in computer science and statistics. Anthropology advisors may recommend additional courses in the sciences, humanities, or mathematics commensurate with individual career plans. A "C" grade point average over-all is required in departmental courses, and at least a "C" grade is mandatory in specific courses required in the department.

Anthropology Course Descriptions

(Department of Sociology and Anthropology)

ANT 105. Introduction to Anthropology (3) Introduction to the physical, archaeological, linguistic, and ethnological fields of anthropology; biological and cultural evolution of man. Three hours each week.

ANT 205. (Sociology 205) Human Societies (3) The comparative study of human society and culture, with selected ethnographic examples to illustrate human adaptation

to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamics of social process and cultural change are also introduced. Three hours each week.

ANT 206. Cultural Anthropology (3) A presentation of the content and historical development of cultural anthropology. Deals with the cultural relativism, ethnocentrism, institutional analysis and cultural integration and shifts in theoretical perspectives by comparing ethnographies of selected cultures. Three hours each week.

ANT 207. Archaeology (3) The concepts and aims of archaeology, its history as a scientific discipline and its present role in the social sciences. Attention to basic principles in field work and to recent advances. Three hours each week.

ANT 207-51. Archaeological Laboratory (1) Corequisite or prerequisite: Archaeology 207. Course is designed to familiarize students with techniques of archaeological recovery, preparation, preservation, and analysis of recovered archaeological materials. Laboratory work will parallel lecture, providing practical experience in techniques covered as part of lecture course. It is not necessary to take the lab in order to take lecture. Three hours each week.

ANT 208. Language and Culture (3) Human language, its characteristics and its relationship to other communication systems will be examined. The use of language to illuminate historical relationships and current sociocultural processes will be discussed, as well as ways in which one can investigate culture through cognitive structures elicited from speech. Three hours each week.

ANT 210. Physical Anthropology (3) Examination and correlation of fossil remains and artifacts preserved in the geologic record as related to the anatomy and behavior of living human and non-human primate groups. Three lecture hours each week.

ANT 230. (Sociology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are reviewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

ANT 250. Anthropology Through Film (3) A series of anthropological (ethnographic) films exploring life and values, especially in nonwestern societies, provide the primary course material. The films are used as a surrogate field experience to introduce a number of major anthropological topics that receive further emphasis in assigned readings and class discussion. Ethnocentrism, adaptation, warfare and acculturation among other themes are explored in this course. Three hours each week.

ANT 301. Shamanism, Witchcraft, and Cults (3) Prerequisite: Anthropology 105 or consent of instructor. A study of the religious institutions of traditional band, tribal, and peasant societies. Topics cover psychological stress, social control, and ritual healing. The cult within modern western society will be compared with those in traditional preindustrial society. Three hours each week.

ANT 302. Traditional Societies in the Modern World (3) Prerequisite: Anthropology 105 or consent of instructor. An assessment of the impact of Western industrial

societies on primitive and peasant peoples of the world. Themes of acculturation, underdevelopment, modernization, economic dependency and rural to urban migration will be treated from a cross-cultural perspective. Three hours each week.

ANT 303. Women, Work and Culture (3) Prerequisite: Anthropology 105 or Sociology 105 or consent of instructor. A study of women's work in traditional societies (primarily Third World). The allocation of work to women is seen as affected by such factors as: socialization and gender defintion, economic exchange patterns, division of labor, religious beliefs, political structure, and the impact of modernization and development policies on work and family roles of Third World women. Three hours each week.

ANT 304. Indians of South America (3) Prerequisite: Consent of instructor. This course will acquaint the student with human populations and their adaptations to the South American continent. Approximately equal emphasis is given to lowland tribes and Andean cultures. Both of these will be studied from an historic perspective spanning the entire period of man's presence on the continent. Three hours each week.

ANT 305. Indians of North America (3) Prerequisite: Consent of instructor. Surveys of North American Indian tribes; subsistence patterns reflected through cultural adaptation to various ecotypes; archaeological analysis of the interplay of Asian and Mexican influences; restructuring of North American Indian cultures as a consequence of European influence. Three hours each week.

ANT 306. Principles of Kinship and Social Organization (3) Prerequisite: Anthropology 105. This course deals with the structures and functions of kinship in a variety of cultures as a background for the study of complex cultural patterns. Three hours each week.

ANT 307. New World Archaeology (3) Prerequisite: Anthropology 105 or 207 or consent of instructor. The entry of man into North America and South America will be examined using archaeological data. Other topics will include the post-Pleistocene expansion of big game hunters, woodland hunter-gatherers, and the development of agricultural societies. Diffusion versus independent invention will be considered. Three hours each week.

ANT 308. Marine Archaeology: Methods and Theory (3) Prerequisite: Anthropology 207, Diver's Certificate, 310 corequisite. This course is designed to introduce the archaeologist to the field of underwater archaeology. Both classroom and field sessions will be required. Theory will be derived from the existing literature. The role of the archaeologist as an underwater scientist will be emphasized. Three hours each week.

ANT 309. Environmental Anthropology (3) Prerequisite: Anthropology 105 or 206 or 207 or consent of instructor. A study of cultural adaptations as responses of human populations to varied environments; this course will focus upon cultural vs. biological adaptation from the archaeological past to the ethnographic present.

ANT 310. Marine Archaeology: Field Practicum (3-6) Prerequisite: Anthropology 207, Diver's Certificate, 308 corequisite. Practical field methods will be taught utilizing actual underwater prehistoric or historic sites. Survey techniques, excavation, record-keeping and preservation will be stressed and adapted to a submarine environment.

ANT 311. Field Methods in Archaeology (3-6) Prerequisite: Anthropology 207. Practical field methods of land-site archaeology will be taught through the excavation of local archaeological sites. Scientific excavation, sampling, and preservation techniques will be presented as the basic tools of the archaeologist.

ANT 312. Historical Archaeology (3) Prerequisite: Anthropology 105 or consent of instructor. Substantive investigation of the special excavation and analysis procedures, subject matter, and goals of archaeology as applied to the historic past of North America. Special emphasis will be placed upon historic archaeological sites in the local (Southeastern North Carolina) region. Lecture, laboratory and field work involved. Three hours each week.

ANT 317. The Human Condition in Latin America (3) Prerequisite: Anthropology 105 or consent of instructor. This course applies the anthropological perspective to the study of the complex national cultures of Latin America. Topics covered focus on the problem of relating peasant communities, small towns, urban slums, middle class neighborhoods, and clubs and social networks to regional and national institutions. Three hours each week.

ANT 320. Human Origins (3) Prerequisite: Anthropology/Earth Sciences 210 or consent of instructor. Classification and history of human evolution deduced from the fossil record and molecular data. Discussion of Tertiary hominoids and emergence of humans with emphasis on Australopithecines and later Pleistocene hominids. Three hours each week.

ANT 322. Primate Biology and Behavior (3) Prerequisite: Anthropology 210 or consent of instructor. Ecology, social behavior, and functional morphology and classification of living primates (prosimians, monkeys, and apes); their evolutionary history and development. Three hours each week.

ANT 324. Human Biological Variation (3) Prerequisite: Anthropology 210 or consent of instructor. Nature and extent of heritable differences among human populations in evolutionary perspective. Consideration of effects of environmental factors on genic expression. Three hours each week.

ANT 345. Method and Practice in Cultural Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of ethnographic field methods through selected readings demonstrating field techniques of major figures in cultural anthropology, both past and present. Practice involves exercises in participant-observation, indepth interviewing, survey research, photographic analysis, and tape recordings of cultural events. Three hours each week.

ANT 350. Maritime Anthropology (3) Prerequisite: Anthropology 105 or consent of instructor. A study of fishermen, navigators, boatbuilders, and seamen. This course traces the origins and development of human maritime adaptations in selected regions of the world. Themes include primitive and traditional fisheries, technological innovation, fisheries management and law of the sea. Three hours each week.

ANT 387. (Art 387) Museum Studies (3) Prerequisite: Permission of instructor. A lecture course focusing on the philosophies and practical exigencies of management of a museum. The course involves actual experience at local museums under the supervision of the director, familiarity with museum policies, roles of the staff, and work within the major areas of museum operations of administration, exhibition, and education. Three hours each week.

ANT 387-51. (Art 387-51) Museum Studies Practicum (1) Prerequisite: Permission of instructor. Practicum includes exhibit installations, sales gallery operations, working with the permanent collection, and assessing and developing educational programs. Three hours each week.

ANT 411. Advanced Field Training in Archaeology (3) Prerequisite: Anthropology 105, 207, 311, and consent of instructor. Supervisory training for field archaeologists. Students direct specific aspects of archaeological excavation, including research design, data recovery, daily site management, and field analysis. For the advanced archaeology student only. Three hours each week.

ANT 430. (Biology 430) Evolutionary Biology (3) Prerequisite: Biology 335 (Genetics). Advanced survey of organizational principles of the genetic apparatus of prokaryotes and eukaryotes. Emphasis of the course directed to critical evaluation of current concepts and models of evolutionary dynamics using relevant illustrative examples from the literature. Three hours each week.

ANT 450. History of Anthropological Theory (3) Prerequisite: Six hours of anthropology above the introductory level or consent of instructor. This course traces the development of anthropological theory through the research and writings of key figures in the field. Attention is directed toward social and intellectual contexts out of which anthropological theories emerge. Three hours each week.

ANT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

ANT 495. Topical Seminar (1-3) Prerequisite: Consent of instructor. Discussion of selected topics in anthropology.

ANT 499. Honors Work in Anthropology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 70.

Sociology

Dr. Blanks, Dr. Dixon, Dr. Faulkner, Dr. Huer, Dr. LaGrange, Dr. Levy, Dr. Maxwell, Dr. McNamee, Dr. Miller, Dr. Polgar, Dr. Scalf, Dr. Shevach, Dr. Supancic, Dr. Willis.

Requirements for a concentration in Sociology for the B.A. degree:
Sociology 105, 306, 360, 406, 460, 490, and 18 additional hours, 12 of which must be at the 300-400 level. Statistics 205 and Sociology 306-51 are required. Collaterals will be decided in consultation with each advisee. Within Sociology some areas of emphasis are deviance and social control, demography and environmental studies, urban and community studies, family and leisure studies, organizations and bureaucracy, and medical and gerontolgy. A "C" grade point average over-all is required on departmental courses, and at least a "C" grade is mandatory on specific courses required in the department.

Criminal Justice and Social Work are areas of specialization in the department. The department offers some alternatives to the above-listed requirements for students specializing in Criminal Justice or Social Work. The alternative requirements are available in the department.

Criminal Justice Course Descriptions

(Department of Sociology and Anthropology)

CRJ 201. Introduction to Criminal Justice (3) Study of the criminal justice system as a social process. Analysis of structure and function of law enforcement, courts, corrections, and probation and parole. Three hours each week.

CRJ 240. Issues in Criminal Justice (3) Examination of critical issues in contemporary criminal justice systems, with emphasis on alternative approaches. Three hours each week.

CRJ 306. (Social Work 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis of data and its implications, research methods with emphasis on practical application. Three hours each week.

CRJ 340. Police in Society (3) Prerequisite: Criminal Justice 201. Analysis of role and function of police in the United States. Special attention to the social arena in which the police operate and the effect of societal changes on police systems. Three hours each week.

CRJ 350. Criminal Courts and the American Justice System (3) Prerequisite: Criminal Justice 201. Analyzes the dynamics of American criminal courts. Examines relationships among the courthouse work-group (police, prosecutor, defense attorney, judge) and discusses the roles assumed by witnesses, victims, defendants and jurors. Three hours each week.

CRJ 395. Corrections (3) Prerequisite: Criminal Justice 201. Studies societal patterns of punishment, alternatives to incarceration, consequences of imprisonment and correctional strategies of rehabilitation and deterrence. Three hours each week.

CRJ 405. Criminal Justice Administration (3) Prerequisite: Criminal Justice 201, 240, and consent of instructor. A concentration on management techniques for each administrative segment of criminal justice: the police, the courts, prosecution/defense, probation, parole and corrections. It will offer alternative models, based on a system approach to function and role, that relate each criminal justice sub-system administratively to the others. Three hours each week.

CRJ 410. World Criminal Justice Systems (3) Prerequisite: Criminal Justice 201 plus six additional hours in Criminal Justice. Comparative study of criminal justice systems throughout the world. Attention to historical, structural, political, legal and philosophical similarities and differences. Analysis includes criminal justice systems of England, France, Sweden, Japan and the Soviet Union. A topical paper is required. Class limited to 20 students. Three hours each week.

CRJ 450. Criminal Justice Theory (3) Prerequisite: Criminal Justice 201 plus six additional hours in Criminal Justice. An analysis of the development of theories of justice and crime control. The theories and principles upon which the American system of justice is based are covered. Three hours each week.

CRJ 490. Criminal Justice Practicum (3-6) Prerequisite: Senior standing in criminal justice. Field placement in various criminal justice agencies. Integrates practical

experience with classroom knowledge. Weekly summaries and a final report are among course requirements.

CRJ 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

CRJ 495. Topical Seminar (1-3) Prerequisite: Junior or senior standing and consent of instructor. Consideration of special topics not dealt with in the regular courses.

For 292 and 492, see explanation on p. 70.

Social Work Course Descriptions

(Department of Sociology and Anthropology)

SWK 235. Introduction to Social Work (3) History, methods, and practice in professional social work in the United States. Three hours each week.

SWK 245. Human Behavior in the Social Environment (3) Prerequisite: Social Work 235. A survey of the human behavior from a social systems standpoint. Emphasis on concepts and theories relevant to social work intervention with individuals, families, groups, organizations, and communiteis. A theoretical foundation for specialized areas of casework, group work, and community organization is provided. Three hours each week.

SWK 301. Social Casework Methods (3) Prerequisite: Social Work 235. An introduction to the basic principles, methods and techniques which form the basis for social work practice with special emphasis on the professional use of self and utilization of systematic processes of problem solving int he delivery of social and rehabilitation services. The interview, social study, information gathering, group leadership, and other problem solving methods will be introduced. Three hours each week.

SWK 302. Social Group Work Methods (3) Prerequisite: Social Work 301. This course provides an opportunity to explore more fully differential concepts and principles, advocacy role, problem-solving skills, strategies and techniques in providing discrete services to individuals, groups, and communities. Emphasis is on roles, communicative patterns, and types of systems encountered by the social worker. It is also concerned with the broadening and deepening of principles underlying autonomous social work practice, decision techniques, goal formulation and mobilizing competence for action. Observation and participation in a selected human service agency is required. Three hours each week.

SWK 306. (Criminal Justice 306) Evaluative Methods for Service Agencies (3) Prerequisite: Statistics 205 and one Computer Science course. Interviewing, participant-observation, ethnomethodology evaluative research, analysis off data and its implications, research methods with emphasis on practical application. Three hours each week.

SWK 310. Programs and Policies for Older Americans (3) Prerequisite: Social Work 235. Health, social,and income needs of an aging population will be related to current laws, programs, administrative networks, and politics. Current issues in the development of programs such as age-integration, community based services, advocacy and protection will be covered. Three hours each week.

SWK 318. Social Work and Health Care Delivery (3) Prerequisite: Social Work 235. An examination of the rationale, issues, problems and practices related to the implementation of client-centered health care. New programs and proposals for the delivery of health services will be reviewed systematically with reference to the implications for social work practice.

SWK 336. Suicidology and Crisis Intervention (3) Prerequisite: Social Work 235. An examination of the present range of theoretical formulations of crisis theory will be made and related to the variety of ways it is being applied in many fields of practice and in a number of commonly encountered stressful situations. Many points of view and approaches, reflecting diverse efforts at extending the knowledge and practice base of crisis conceptualizations are studied. Emphasis is placed on observing, formulating, defining, and measuring the threats, tasks and opportunities associated with crisis behavior in individuals and families. The use of preventative techniques that are appropriate for individuals, groups and communities are explored. A common theoretical frame of reference will be developed to provide systematic and in-depth response, the range of normally developing life crisis, as well as abnormal and accidental crises. Three hours each week.

SWK 396. Community Organization and Social Practice (3) Prerequisite: Social Work 235. The course analyzes a variety of forms of community organization practice, focusing on definition of goals. values, roles and skills required for professional practice. Community organization is viewed as a process of bringing about desirable changes in community life. Community needs and resources available to meet these needs are studied. Three hours each week.

SWK 435. Social Welfare Policies (3) Prerequisite: Social Work 235, 301, and 302. A problematic approach to situations that affect policies, issues, programs and services in social work and rehabilitation services. An attempt to aid the student in developing an analytical and critical understanding as he explores the motivation and methods by which social work and rehabilitation services, policies and programs are being developed by our society and other countries. Three hours each week.

SWK 490. Social Work Practicum (3-6) Prerequisite: Consent of instructor. A field experience in selected social agencies designed to permit student application and inte-gration of cognitive and affectual learning with a formalized service system. Learning experiences and content are designed to gain and demonstrate beginning knowledge, attitudes and skills which are consistent with the concepts of social practice. The student will participate in a two hour weekly seminar.

SWK 490-51. Social Work Laboratory (1) Prerequisite: Social Work 490 corequisite. Integration of practicum and theory through the discussion of selected topics related to social work practices. To be taken concurrently with Social Work 490. Two hours each week.

SWK 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SWK 495. Topical Seminar (1-3) Prerequisite: Sociology 105, Social Work 235 and consent of instructor. A consideration of special topics not dealt with in regular courses.

For 292 and 492, see explanation on p. 70.

Sociology Course Descriptions

(Department of Sociology and Anthropology)

SOC 105. Introduction to Sociology (3) Science of human society emphasizing physical basis of society, culture, collective behavior, population, and social institutions. Analytical approach stressed. Three hours each week.

SOC 110. Sociology in Contemporary Life (3) An introductory level course designed to enable students to think about and interpret the social world and events around them. Emphasis will be placed on discovering your social self, understanding social interaction, and interpreting the relationship of the individual with modern industrial society. Three hours each week.

SOC 200. Sociology of Sport (3) A sociological examination of the rise of sport in contemporary society. Topics such as the social organization of sports, women and sports, sports and violence, inter-scholastic sports and achievement behavior, discrimination and sports, and the future of sport are covered. Three hours each week.

SOC 205. (Anthropology 205) Human Societies (3) The comparative study of human society and culture with selected ethnographic examples to illustrate human adaptation to specific environments and reveal patterns of major social institutions—economy, marriage and kinship, politics and religion—which underlie and support a particular way of life. Comparisons are drawn among hunter-gatherer, tribal horticultural, peasant and modern industrial societies. Perspectives on the dynamic of social process and cultural change are also introduced. Three hours each week.

SOC 215. Modern Social Problems (3) Social controls and the sociology of revolutionary change. Problems related to race, family, crime, delinquency, and social disorganization. Three hours each week.

SOC 220. Sociology of Birth and Death (3) The examination of the sociological dimensions of "human entry and exit." The social organizational and cultural dimensions of birth and death will be considered in terms of rites of passage, bureaucratization, social movements, cultural differences, and historical and contemporary contexts. Three hours each week.

SOC 230. (Anthropology 230) Utopian and Communal Societies (3) A theoretical and descriptive analysis of "intentional" communities and social systems. Coverage of earliest utopian experiments and modern rural and urban communes. Communities are viewed in terms of their origin and purpose, ideology, subsistence, social patterns, relations with the outside world, and survival. Three hours each week.

SOC 305. Population (3) Prerequisite: Sociology 105. A study of the changes in size, composition, distribution of population and the dynamics underlying them. Three hours each week.

SOC 306. Methods of Social Research (3) Prerequisite: Sociology 105, Statistics 205. Introduction to the logic and methods of sociological research. Topics include the logic of social scientific inquiry; the relationship between theory and research; problem formulation; research design; conceptualization and measurement; operationalization; sampling; modes of observation; index and scale construction; introduction to analysis and interpretation of quantitative data; and ethics and politics of social research. Three hours each week.

SOC 306-51. Methods of Social Research Laboratory (1) Prerequisite: Sociology 105 and Statistics 205. Basic instruction in SPSS computer programming techniques and applications to social scientific data management and analysis. Two hours each week.

SOC 311. (Political Science 311) Techniques of Public Opinion Polling (3) Prerequisite: Political Science 211 or consent of instructor. Basic skills in all phases of public opinion polling: issue focus; questionnaire construction; sample selection; interview techniques; elementary data analysis; interpretation and presentation of results. Opinion polls of current political and social issues conducted as class projects to develop these skills. Three hours each week.

SOC 315. Urban Sociology (3) Prerequisite: Sociology 105. Analysis of the history and development, social organization, and problems of the city. Three hours each week.

SOC 316. Human Ecology (3) Prerequisite: Sociology 105 and three additional hours in Sociology above the introductory level. A theory of community structure based on societal evolution as shown through the referential concepts of population, organization, environment and technology. An analysis of the spatial, temporal, functional and relational configuration of human communities. Three hours each week.

SOC 325. American Minority Relations (3) Prerequisite: Sociology 105. Analysis of the ascriptive bases of inequality in American society: race, ethnicity, religion and sex. Topics include sociocultural causes and consequences of prejudice and discrimination; institutionalized discrimination; and Europe immigration, ethnicity and assimilation. Three hours each week.

SOC 326. Collective Behavior and Social Movements (3) Prerequisite: Sociology 105. Analysis of social behavior that breaks from existing patterns and expectations, such as riots, crowds, revolution, and social movements. Three hours each week.

SOC 333. Sociology of Mental Illness (3) Prerequisite: Sociology 105. A sociological examination of the development and distribution of mental health and illness, particularly in the United States. Drawing from the works of relevant writers in the field, such as Scheff and Goffman, the course emphasizes the societal reaction approach to mental illness. Topics to be included are mental illness as deviance, the sociogenesis of mental disorder, and social stratification and mental illness. Three hours each week.

SOC 335. The Sociology of Deviant Behavior (3) Prerequisite: Sociology 105. The analysis of certain behavior in terms of deviations from norms; the application of sociological and psychological concepts and theory to deviant behavior, and the critical evaluation of non-sociological research and theories. Three hours each week.

SOC 336. Sociology of Aging (3) Prerequisite: Sociology 105. Introduction to sociological theories and methods used to explain the aging process. Topics include age stratification, adjustment to life events, housing patterns, health, and social policy. Three hours each week.

SOC 337. Medical Sociology (3) Prerequisite: Sociology 105. A sociocultural analysis of the general area of health and illness. Emphasis is given to understanding the distribution of health and illness in the United States and its impact on the patient status. The course includes a discussion of the organization and use of health care services from a sociological perspective. Three hours each week.

SOC 340. Organizations in Modern Society (3) Prerequisite: Sociology 105. An introduction to the dynamics of social life in large-scale organizations. Topics include organizational social psychology, organizational structure and process, and organization-community relations. Three hours each week.

SOC 344. The Sociology of Politics (3) Prerequisite: Sociology 105 or Political Science 101. Examines political institutions and political behavior from a sociological perspective. Topics include the social and economic origins of political behavior; the organization and distribution of political power and its effects on society, politics and social change. Three hours each week.

SOC 345. Sociology of the Family (3) Prerequisite: Sociology 105. Origin and development of the family as a social institution from an historical and comparative approach; analysis of forms and functions of the family: socialization, mate selection, procreation. Three hours each week.

SOC 346. Sociology of Religion (3) Prerequisite: Sociology 105. An analysis of the structure, function and process of religion, emphasizing the reciprocal relation of religion and cultural and religious differentiation and institutionalization. Three hours each week.

SOC 347. Sociology of Education (3) Prerequisite: Sociology 105. An examination of the socio-cultural factors operating at various levels of the educational process, from classroom to school system to community, in light of the changing roles of the child and education in a complex industrial society. Three hours each week.

SOC 348. Sociology of Leisure and the Arts (3) Prerequisite: Sociology 105. This course surveys existing theory and research with respect to the concept of leisure. Specific attention is devoted to sociological analyses of trends, differentials, and time expenditures which population categories exhibit in recreational, sporting, and arts activities. Three hours each week.

SOC 350. Sex Roles in Society (3) Prerequisite: Sociology 105. The diifferentiation of both ascribed and achieved roles in modern society based on the variable of sex of the individual, conditions which serve to maintain or to weaken the normative patterns, and consideration of some of the consequences of differentiation. The effects of sex-role socialization on political, occupational, and educational behavior, with emphasis placed on stability and change. Three hours each week.

SOC 355. Criminology (3) Prerequisite: Sociology 105. The nature, variation and causes of crime are studied as aspects of the American culture. Three hours each week.

SOC 360. Foundations of Social Thought (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. A review of the significant trends of development in sociological theory with emphasis on the relationship of theory to research. Three hours each week.

SOC 365. Social Psychology (3) Prerequisite: Sociology 105. A sociological analysis of human social interaction. Topics include symbolic interaction, socialization, interpersonal relations. Focus is on social and cultural influences on individual and group behavior. Three hours each week.

SOC 366. Social Change (3) Prerequisite: Sociology 105. The study of social and cultural change in community and society with emphasis upon the rate and degree of change,

direction of change, mechanism of change, and planning of change. Three hours each week.

SOC 375. Juvenile Delinquency (3) Prerequisite: Sociology 105. The analysis and description of the problem of juvenile delinquency as it exists in a changing contemporary society. Three hours each week.

SOC 385. The Community (3) Prerequisite: Sociology 105. Structure, process and change in modern communities. Topics include analysis of the concept of community; the community as a social system; major community functions; relationships between the community and larger society; community stratification, power structure and organization. Three hours each week.

SOC 386. Sociology of Work and Occupations (3) Prerequisite: Sociology 105 and three additional hours in Sociology or Economics. An analysis of the place of work in society. This course examines occupational structures as the primary link between persons and the larger society. Topics to be included are the growth and development of occupational structure, occupations and technological change, occupations and organizational complexity, and other system features which influence or are influenced by the occupational structure. Three hours each week.

SOC 390. Social Structures (3) Prerequisite: Sociology 105. The course examines the concept of social structure as differentiated social positions and units and their interrelations, including bases of differentiation and integration. Examines patterns of a variety of social structures—the overall structure and patterned development of society, the structure of culture, the structure of deviance, the structure of interaction—considering consequences and interrelations. Three hours each week.

SOC 406. Advanced Social Research Methods (3) Prerequisite: Sociology 306, 306-51. A study of the social survey research process: problem formulation, literature review, instrument development, sample determination, data collection, statistical analysis, and report writing. Requirements include individual research proposals and a class research project. Three hours each week.

SOC 415. Power and Privilege (3) Prerequisite: Sociology 105 and six additional hours in Sociology above the introductory level. Examination of social stratification as the system of distribution of privilege, power and prestige in modern and traditional societies. Discussion of major theories and theorists of stratification; the structure and process of systems of social inequality; the causes, correlates and consequences of socially structured inequality. Three hours each week.

SOC 449. Sociology of Law (3) Prerequisite: Sociology 105 and junior/senior standing. An analysis of the role of law in society. Special emphasis will be given to the relationship between law and social organization and the relation of sociocultural changes to substantive and procedural aspects of law. The concept of justice will also be analyzed. Law will be viewed as a collectivistic-individualistic process and as a reflection of sociocultural values. Three hours each week.

SOC 460. Contemporary Sociological Thought (3) Prerequisite: Sociology 360. Coverage of the major contemporary theoretical approaches in sociology is provided. The development of structural-functionalism, positivism, Marxian thought, interactionism, ethnomethodology, and structuralism are analyzed in terms of the structure and purposes of theory. Three hours each week.

SOC 490. Senior Project (3-6) Prerequisite: Sociology 105, 306, 406 and senior status. A personal study of a segment of the community will be undertaken by each major. There will be an analytical paper written after actual data has been acquired preferably through a personal confrontation within an institutional setting.

SOC 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of instructor.

SOC 495. Topical Seminar (1-3) Prerequisite: Sociology 105 and consent of instructor. Consideration of special topics not regularly dealt with in regular courses.

SOC 499. Honors Work in Sociology (2-3) Prerequisite: Eligibility for honors program and senior standing. Independent work for honors students.

For 292 and 492, see explanation on p. 70.

SPANISH

(See Modern Languages)

SPEECH COMMUNICATION

(See Creative Arts)

CAMERON SCHOOL OF BUSINESS ADMINISTRATION

Norman R. Kaylor, *Dean*
Denis G. Carter, *Associate Dean*

The Cameron School of Business Administration of The University of North Carolina at Wilmington has planned its courses and curricula to be of use to the graduate in a position of responsibility as an owner of an independent business enterprise or as an employee at the decision making level in private business or in government and other non-profit organizations.

The primary function of the Cameron School of Business Administration is to teach students the basic body of knowledge they will need to enter a career in business or government and to promote the development of proficiency in practical application. The academic programs provide graduates with career opportunities in manufacturing and service organizations, marketing and sales, government, accounting firms, banks and other financial institutions. The graduate is also prepared to enter law school and graduate programs in public administration as well as for graduate study in accountancy, business administration, and economics. As complementary functions, through individual faculty efforts and the Center for Business and Economics Services, the Cameron School of Business Administration undertakes research in appropriate areas and provides related services to business and governmental units.

DEGREE PROGRAMS AND REQUIREMENTS

The B.S. degree is offered in five areas of concentration: **Accountancy, Business Management, Finance, Marketing,** and **Economics.** The B.A. degree with a concentration in Economics is offered for those students who want to study Economics in the liberal arts tradition.

Requirements for admission to the Cameron School of Business Administration are listed on page 66. Each applicant must have completed a minimum of 44 semester hours with a cumulative grade point average of 2.0 or better, with the following courses completed at the time of application:

ENG 101-102, MAT 111 or 115, *ACG 201, ECN 221.

During the semester of application each applicant must be enrolled in or have completed:

MAT 151 or 161, ECN 222, *PDS 217, *ACG 203 or 204.

*Students seeking a concentration in Accountancy should enroll in ACG 204; all other B.S. degree candidates should enroll in ACG 203. Students enrolling in the B.A. program in Economics are not required to complete ACG 201, 203 or 204 and may substitute STT 205 or 215 for PDS 217.

Students may qualify for the B.S. or B.A. degree by:

(1) successful completion of requirements as stated under Academic Regulations on page 61;
(2) successful completion of the courses designated for the degree program; and
(3) attaining a minimum grade point average of 2.0 on all courses attempted in the Cameron School of Business Administration.
(4) Students seeking the B.S. degree with a concentration in Accountancy must also earn a minimum grade point average of 2.0 on all accounting courses attempted in the Cameron School of Business Administration.
(5) The B.A. degree requires a minimum grade point average of 2.0 on all Economics courses attempted.

Electives are to be chosen by the student after consulting with the faculty advisor, with no more than 9 semester hours of free electives selected from courses in the Cameron School of Business Administration.

ACCOUNTANCY AND BUSINESS LAW

Mr. Appleton, *Chairman.* Dr. Baker, Mr. Davenport, Mr. Eaglin, Mr. Earney, Dr. Elikai, Mr. Herron, Dr. Kaylor, Dr. Marts, Mr. Roscher, Mrs. Sawyer, Ms. Sheffield, Mr. Zeko.

The B.S. degree with a concentration in Accountancy provides the student with the analytical foundation of the discipline of Accountancy. Included are the special tools and techniques of planning and control using financial and managerial accounting, income taxes, cost analysis, and systems.

Students establish qualifications for careers as professional certified public accountants, and in industrial, governmental, and other positions requiring managerial and analytical skills. The accounting concentration provides an excellent background for graduate and other professional education.

The elements of planning, administration, and control covered in the accounting courses are essential to all areas of business. Many of the courses offered benefit students concentrating in other fields by furnishing a comprehensive background of business procedures and financial relationships. Likewise, students concentrating in Accountancy find it advantageous to elect as many courses as possible in other areas of business, especially the quantitative fields.

A graduate of the Cameron School of Business Administration who has completed a concentration in Accountancy is permitted by the State Board of Accountancy of North Carolina to write the CPA examination. The student is also qualified by the Institute of Management Accounting to write the CMA examination.

The courses in business law and legal environment provide the study of how the legal environment influences and is influenced by changing social and ethical values. Courses include study of administrative law and the Uniform Commercial Code as well as the organization and role of business enterprises in society and their relationships in government and society.

Requirements for a concentration in Accountancy for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses: PDS 317, ACG 204-303-304, 305, 404, 407, and two courses from the following: ACG 307, 309, 405, and 406. Students planning to write the CPA examination are advised to elect BLA 461 and additional accounting electives including ACG 309, 402, and 405.

Accountancy Course Descriptions

(Department of Accountancy and Business Law)

ACG 201. Financial Accounting (4) Prerequisite: MAT 111. An introduction to the basic framework of accounting for both students concentrating in accountancy and other disciplines. Includes preparation of financial records, working papers, and financial statements, and analysis of the major financial statements with emphasis on the underlying accounting concepts and constraints.

ACG 203. Managerial Accounting (3) Prerequisite: ACG 201. An introduction to the concepts and techniques used by management to analyze and interpret accounting data in the organization. **Not open to students seeking a concentration in accountancy.**

ACG 204-303-304. Intermediate Accounting I, II, and III (3-3-3) Prerequisite: ACG 201. Analysis of traditional financial accounting topics and theory. Examines recent developments in accounting measurement and promulgations of the leading professional accounting organizations. ACG 204 emphasizes development of accounting standards and theory, financial statements, current assets and current liabilities. ACG 303 emphasizes plant assets, long-term investments, long-term liabilities, stockholders equity, revenue recognition and income tax allocation. ACG 304 emphasizes pensions and leases, changes in financial position, accounting for changing price levels, financial statement analysis, international operations, corporate liquidations and reorganizations, and segment and interim reporting.

ACG 305. Cost Accounting (3) Prerequisite: ACG 201. Costs for planning and control, including the role of the accountant in the organization; cost behavior and volume-profit relationships; responsibility accounting; standard costs; flexible budgets; cost structures for control and motivation; and relevant costs for nonroutine decisions.

ACG 307. Administrative Accounting and Control (3) Prerequisite: ACG 203 or 305. The controllership function and analytical methods to serve the information needs of decision making and control; advanced topics in cost accounting, forecasting, budget design and preparation, and responsibility accounting.

ACG 309. Accounting for Business Combinations (3) Prerequisite: ACG 303. A study of accounting problems in parent-subsidiary interrelationships, mergers and consolidations, partnerships, and non-profit accounting. Emphasis on consolidated financial statements.

ACG 402. Specialized Accounting Problems (3) Prerequisite: ACG 304, 305, and 309. Advanced study of accounting practice and theory with emphasis on preparation for the CPA examination. Includes study of official pronouncements of the American Institute of Certified Public Accountants and the Financial Accounting Standards Board.

ACG 404. Federal Income Taxes I (3) Prerequisite: ACG 201. Study of federal income taxation of individuals. Includes business expenses and revenues, depreciation, and property transactions and the history and development of taxation.

ACG 405. Federal Income Taxes II (3) Prerequisite: ACG 404. The study of corporate, partnership, estate and trust taxation. Emphasis is on corporation and partnership organization, operations, distributions, liquidation and reorganization.

ACG 406. Non-Profit Organization Accounting (3) Prerequisite: ACG 303. Accounting for not-for-profit organizations including governments, colleges and universities, hospitals, charities, and other not-for-profit organizations. Emphasis is on objectives and preparation of financial statements, the use of managerial reports, and budgetary data.

ACG 407. Auditing (3) Prerequisite: ACG 304. Objectives, standards and procedures involved in examining and reporting on financial statements of business organizations by independent auditors in light of ethical and legal obligations.

ACG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ACG 498. Accounting Internship (3) Prerequisite: Senior status and consent of faculty supervisor. Involves the application of professional accounting skills required in the academic environment to the role of the practicing professional accountant. The participant will receive practical training and experience under the guidance of the accounting staff of a local business or government organization and a faculty supervisor. Open only to students concentrating in accountancy. Available internships will be filled on a competitive basis.

ACG 499. Honors Work in Accounting (2-3) Prerequisite: Senior standing. Independent work for honors students.

Business Law Course Descriptions (Department of Accountancy and Business Law)

BLA 361. Legal Environment of Business (3) Prerequisite: Junior or senior standing. Study of the organization and role of business enterprises in society and their relationships in government. Examines how the legal environment is influenced by changing social and ethical values. Topics include agency, antitrust, forms of business organization, environmental regulation, equal opportunity, labor law, product liability, and property rights.

BLA 461. Commercial Law (3) Prerequisite: Junior or senior standing. Study of the commercial legal environment in which business enterprises operate. Examines the law of contracts, sales and warranties, security interests, commercial paper, and debtor and creditor rights.

BLA 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

BLA 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

ECONOMICS AND FINANCE

Dr. Hill, *Chairman.* Dr. Carter, Dr. Comeskey, Dr. Copley, Dr. Farrell, Dr. W. Hall, Dr. Harriss, Dr. Lawson, Dr. Morgan, Dr. Wadman, Dr. Walsh.

The Economics and Finance programs prepare students for careers which emphasize an understanding of the operation of the economy and the proper choice of policies by both government and business enterprises. The Economics concentrations represent a more general area of study, preparing the student to enter government service, industry, or to pursue a graduate program in economics, business, public administration or other social science disciplines.

The B.S. degree with a concentration in Economics is designed to provide orientation of the individual and the firm in economic society. The student is required to supplement the study of economics with a variety of business and accounting courses.

The B.S. degree with a concentration in Finance consists of three separate but related areas—business finance, investments, and financial institutions. The Finance curriculum prepares students for graduate study and for careers in corporate financial management, the investments and securities business, and the management of banking and nonbank financial institutions. The generalized applicability of finance and the basic tools of financial analysis are emphasized in the courses.

The B. A. degree with a concentration in Economics is designed for the student who wants to study Economics in the liberal arts tradition. The study of a wide variety of economics courses is supplemented by a study of history and the social sciences. Both degree programs develop an understanding of contemporary economic problems and institutions and provide a study of economic issues both in an historical setting and under conditions of change.

Requirements for a concentration in Economics for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses:

(1) Students planning study in general economics must complete, in addition to the courses named in (a) above, ACG 203, ECN 320, 321, 322, 328, 495, and two courses selected from the following, one of which must be numbered above 399: ECN 323, 325, 326, 329, 421, 422, 426, 427, and 428

(2) Students planning study in Economics with an emphasis on Finance must complete, in addition to the courses named in (a) above, ACG 203, ECN 320, 321, 322, 495, FIN 330, 436, 437.

Requirements for a concentration in Finance for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses: In addition to the courses named in (a) above, students must complete ACG 203, PDS 317, FIN 330, 336, 436, 430 or 437, and two courses selected from the following: FIN 331, 332, 430, 431, 437, 495.

Requirements for a concentration in Economics for the B.A. degree:

(a) Core Requirements: In addition to basic studies requirements the following courses must be completed: MAT 111-151, PDS 217 OR STT 205 OR 215, ECN 221-222, 321, 322, 324, 326 or 421, 328, 495, and six additional hours in Economics courses numbered above 299.

(b) In addition to the courses named in (a) above, the student must complete 21 semester hours from at least two of the following: Anthropology, Geography, History, Political Science, Psychology, Sociology. A minimum of six hours must be taken in at least two areas, and at least nine hours must be courses numbered above 299.

Economics Course Descriptions

(Department of Economics and Finance)

ECN 125. Survey of Economics (3) An introduction to economics principles for non-business and non-economics majors. Current analysis rather than theoretical analysis is utilized to present and show the relevance of economics principles.

ECN 221. Principles of Economics—Micro (3) Prerequisite: MAT 111. Analysis of decision-making processes and economic equilibrium for the individual firm and consumer at an introductory level.

ECN 222. Principles of Economics—Macro (3) Prerequisite: ECN 221. Aggregate economic analysis examining the effects of fiscal and monetary policy upon aggregate employment, income and prices at an introductory level.

ECN 320. Managerial Economics (3) Prerequisite: PDS 314. The theory and application of economics principles and methodology to the decision making process under conditions of uncertainty. Includes the following topics: demand theory and analysis; cost and production conditions facing the firm; forecasting; resource allocation and management of inputs; pricing, profit strategies, and market structure; and finance and investment decision making for the firm.

ECN 321. Intermediate Price Theory (3) Prerequisite: MAT 151 and ECN 222. A theoretical analysis of individual consumer and firm behavior and general equilibrium.

ECN 322. National Income Analysis (3) Prerequisite: ECN 321. A theoretical analysis of the determination of aggregate income, aggregate employment, and the average price level and role of monetary and fiscal policy in the determination of such.

ECN 323. Business, Government and Society (3) Prerequisite: ECN 222. A broad study of the role of business enterprises in society and their relationships with government. Examines influence on decision making of changing social values, changing political, legal, and regulatory environments.

ECN 324. Money and Capital Markets (3) Prerequisite: ECN 222. An introduction to the financial and economic environment within which a firm must operate. Analysis of the sources and the cost and availability of funds in a domestic and international setting; analysis of international monetary flows; financial decision making in an integrated world economy.

ECN 325. (EVS 325) Environmental Economics (3) Prerequisite: ECN 125 or 221. Application of economics concepts to environmental problems; common property resources, public goods, and technological externalities as determinants of market failure; institutional alternatives involving economic incentives.

ECN 326. Comparative Economic Systems (3) Prerequisite: ECN 125 or 222. Analysis of economic systems operating under capitalism, socialism, communism, and fascism; institutions and organization of production and government; decision-making; distribution of income; problems of developing nations.

ECN 327. Money and Banking (3) Prerequisite: ECN 222. A theoretical and empirical analysis of the effects of money on aggregate income and employment and the average price level. Analysis of the tools and policy of the Federal Reserve System. An overview of banks and other financial institutions.

ECN 328. Public Finance (3) Prerequisite: ECN 222. Study of state, local, and federal government revenue and expenditures; theory of taxation, tax shifting and incidence; theory of public goods, fiscal neutrality and government regulation; methods of achieving efficiency in government beneift-cost analysis, program budgeting (PPB), and pricing of government services.

ECN 329. Industrial Organization (3) Prerequisite: ECN 222. A theoretical and empirical study of how the structure of industry affects the conduct and performance of the firm; covers government regulation, control and influence in business activity with respect to structure, conduct and performance.

ECN 421. History of Economic Thought (3) Prerequisite: ECN 222. Scientific economic thought and philosophy from ancient to modern times. Open-ended as to dates of time period covered. Primary emphasis is on topics as opposed to schools of thought.

ECN 422. Econometrics (3) Prerequisite: PDS 217 and ECN 321. An introduction to the formalization of economic hypotheses into testable relationships and the application of appropriate statistical techniques. Theoretical aspects are covered, but primary emphasis is on computer application utilizing regression analysis.

ECN 426. International Trade and Finance (3) Prerequisite: ECN 222. A consideration of international trade theory and international financial institutions, including comparative advantage, exchange rates and balance of payments problems.

ECN 427. Labor Economics (3) Prerequisite: ECN 222. An analysis of the demand for and the supply of labor at the individual and the aggregate level; labor unions and collective bargaining.

ECN 428. Regional Growth and Development (3) Prerequisite: ECN 222. Theories of subnational or regional economic growth. Measures of regional economic policies to alleviate problems resulting from disparate rates of regional economic growth.

ECN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

ECN 495. Senior Seminar in Economics (3) Prerequisite: ECN 322 and consent of instructor. An examination of current problems in economics organized on a discussion-research basis. The content of the course will vary as changing conditions and economic priorities require the use of new approaches to deal with current issues.

ECN 498. Internship in Economics (1-3) Prerequisite: Senior status and consent of department chairman. Involves the application of economics concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a busines or not-for-profit organization and a faculty supervisor.

ECN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

Finance Course Descriptions

(Department of Economics and Finance)

FIN 235. Personal Finance (3) Study of individual and family financial decisions. Designed to prepare the student to exercise intelligent control over income, expenditures, borrowing, savings and investments. Recommended elective for non-business majors.

FIN 330. Principles of Investments (3) Prerequisite: ACG 201 or ECN 222. An introduction to alternative investments, with major emphasis on financial instruments. Practical descriptive material and relevant theoretical applications. Topics include stocks, bonds, options and REITs.

FIN 331. Real Estate (3) Prerequisite: ACG 201 and ECN 222. Principles of property management and practices relating to appraisal, sales, ownership, control, financing, and transfer of real property.

FIN 332. Risk Management and Insurance (3) Prerequisite: ACG 201 and ECN 222. An introduction to the risk management function and to the basic methods used to handle risks facing the business enterprise, families and individuals. Emphasis is on the insurance method of handling risk with study of the concepts underlying insurance, the fundamentals of insurance contracts, and a broad selection of policy coverages in the property and liability, and life and health fields.

FIN 335. Business Finance (3) Prerequisite: ACG 203 or 204 or 305 and PDS 217 and ECN 222. An introduction to the finance function of business enterprise and to the analytical techniques used in making investment and financing decisions.

FIN 336. Capital Budgeting Analysis (3) Prerequisite: FIN 335. The study of the theory and practice of capital expenditure management including investment decisions and their impact on cash flows, business firm valuation, and the capital asset pricing model. Use of cases and financial analysis.

FIN 430. Investment Management (3) Prerequisite: FIN 330 and 335. An analytical approach to the valuation of stocks, bonds and options and the placement of those securities in Markowitz-efficient portfolios. Technical and fundamental analysis, market efficiency and valuation methods are examined. Both application and theory are emphasized.

FIN 431. Real Estate Investment Analysis (3) Prerequisite: FIN 335. The decision making process in real estate investment analysis including risk and return, financing alternatives, tax implications, and pricing and development alternatives.

FIN 436. Financial Management (3) Prerequisite: FIN 335. Financial analysis and decision making in the modern business organization. Theoretical foundations of financial decision making are emphasized, including both working capital and fixed capital requirements.

FIN 437. Management of Financial Institutions (3) Prerequisite: ECN 324 and FIN 335. A case study course in the management of financial institutions with emphasis on commercial banks and savings and loan associations. Major emphasis on defining the functional areas within the institutions and the associated decision making process.

FIN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

FIN 495. Senior Seminar in Finance (3) Prerequisite: FIN 436 and senior standing. An examination of current problems in finance. Course content will vary as new techniques are developed to respond to a dynamic financial environment.

FIN 498. Internship in Finance (1-3) Prerequisite: Senior status and consent of department chairman. Involves the application of financial concepts in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

FIN 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

MANAGEMENT AND MARKETING

Dr. Adams, Dr. A. Anderson, Dr. Engdahl, Dr. Harper, Dr. Honeycutt, Dr. Keating, Ms. Marshall, Dr. Perrachione, Dr. Sherman, Dr. Turner, Dr. West.

The Management and Marketing degree programs provide preparation for careers in product and service organizations. Each program of study is based on a broad educational foundation combined with courses in Accounting, Finance, Management, Marketing, and Economics. Both programs are also designed for students who wish to pursue other professions in legal, governmental, and not-for-profit institutions. Students are permitted some latitude in selecting courses and may choose to concentrate in Management or Marketing. Within the B.S. degree program with a concentration in Business Management, the student may elect an emphasis in business management or a program of courses designed to meet the specific interest of the student. Within the field of Management, the student selects from courses in human resource management, organization behavior, small business management, and business information systems and should consider additional electives in computer science and the social sciences.

Requirements for a concentration in Business Management for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses:

(1) Students seeking a study of Business Management will complete, in addition to the courses named in (a) above, ACG 203, PDS 317, BLA 461, MGT 358, and four courses from the following: MGT 351, 356, 453, 454, 456, 495, PDS 416, ECN 320, MKT 344, 448.

(2) Students seeking a study of Business Management in an area of particular interest, such as small business management or human resource management, will complete, in addition to the courses named in (a) above, ACG 203, PDS 317, BLA 461, and 15 semester hours in the Cameron School of Business Administration in courses numbered above 299 (except 491 and 498) with prior approval of the Director, Undergraduate Advising Center.

Requirements for a concentration in Marketing for the B.S. degree:

(a) Core Requirements: In addition to basic studies requirements, the following courses must be completed: MAT 111-151, ACG 201, ECN 221-222, 324, BLA 361, PDS 217, 313, 314, MGT 350, 455, FIN 335, MKT 340.

(b) Concentration Courses: In addition to the courses named in (a) above, the following courses must be completed: ACG 203, PDS 317, MKT 341, 445, and four courses from the following: MKT 344, 346, 347, 349, 442, BLA 461.

Management Course Descriptions

(Department of Management and Marketing)

MGT 350. Organization Theory and Behavior (3) Prerequisite: ACG 201 and junior standing. Study of theories, research and concepts underlying the structure and processes of complex organizations. Emphasis on problem solving issues and applications in organization design, leadership, motivation and interpersonal communications.

MGT 351. Business Communications Skills (3) Prerequisite: ENG 102, ACG 201, ECN 221. Fundamentals of business communications with emphasis on preparing formal business reports. Emphasis is on the communication process in management,

including primary and secondary research, business writing, and making oral presentations.

MGT 356. Human Resource Management (3) Prerequisite: MGT 350. Evaluation of concepts and approaches used in human resource management and development. Study of manpower planning, selection procedures, performance review, compensation and benefits, equal employment/affirmative action factors, and labor relations. Emphasis is on how personnel specialists and operating managers can improve organizational performance.

MGT 358. Organizational Behavior (3) Prerequisite: MGT 350. Application of behavioral science concepts in the management of organizations. Emphasis on increasing productivity on the individual, group, and organizational level. Particular attention directed to analyzing organizations, developing motivational programs, designing enriching jobs, leadership development, and managing organizational change.

MGT 453. Management of Small Business (3) Prerequisite: BLA 361, MGT 350, MKT 340, FIN 335 and senior standing. Examination of the factors involved in managing an existing small business. Emphasis on tailoring the marketing mix to specific target markets, financial planning and control, and operational aspects of small business including supplier relations, taxation, and credit collection.

MGT 454. Entrepreneurship (3) Prerequisite: MGT 453. Primary focus on starting a new business. Specific areas include identifying business opportunities, conducting feasibility studies, developing the business plan, evaluating alternative ways of financing new ventures, identifying the appropriate legal form of organization, and managing for tax planning. Purchasing an existing business and acquiring a franchise are also addressed.

MGT 455. Business Policy (3) Prerequisite: MGT 350, PDS 317, BLA 361, MKT 340, FIN 335. Capstone course integrating the functions and policies of business decision making at the policy making level of management. Case study method is used.

MGT 456. Industrial Relations (3) Prerequisite: MGT 356. Analysis of management techniques for the administration of labor agreements; study of collective bargaining and union-management relations; and evaluation of labor relations in union and nonunion organizations. Case studies provide realistic experience for both private and public sector labor relations.

MGT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MGT 495. Senior Seminar (3) Prerequisite: MGT 350 and senior standing. Special topics in management not regularly addressed in other management courses.

MGT 498. Internship in Management (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of management knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or not-for-profit organization and a faculty supervisor.

MGT 499. Honors work in Management (2-3) Prerequisite: Senior standing. Independent work for honors students.

Marketing Course Descriptions

(Department of Management and Marketing)

MKT 340. Principles of Marketing (3) Prerequisite: ACG 201 and ECN 221. Basic functions, institutions and problems involved in the distribution of goods and services. Emphasis is on integrating the managerial approach with the behavioral, institutional and environment factors.

MKT 341. Marketing Research (3) Prerequisite: PDS 217 and MKT 340. The development and utilization of marketing research techniques for decision making. Emphasis on specifying, obtaining, analyzing, interpreting, and reporting information in the marketing context. Particular attention directed toward Bayesian decision analysis, product research, estimating market potential, sampling, experimental survey, design and test marketing.

MKT 344. Distribution Management (3) Prerequisite: MKT 340. An introduction to physical distribution from an institutional and managerial perspective. Study of channel structure, legal factors, performance measurement, inventory control, and trends in the channel environment. Emphasis on the design and management of a physical distribution system.

MKT 346. Retail Management (3) Prerequisite: MKT 340. Examination of the principles and methods of retailing. Study of social, political, ethical, and economic environments. Emphasis on market segmentation, merchandising, and managerial control.

MKT 347. Promotion Management (3) Prerequisite: MKT 340. Study and evaluation of the concepts and procedures useful in promoting an organization to its external publics. Emphasis on advertising and the mass media, including communication strategy, media use, budgeting, and public relations.

MKT 349. Consumer Behavior (3) Prerequisite: MKT 340. Application of the principles and techniques of the behavioral sciences to marketing situations. Emphasis placed on how and why consumers behave and how to use this knowledge to develop effective marketing programs. Particular attention to attitude formation, family consumption, decision making, motivation research, and the influences of social status.

MKT 442. International Marketing (3) Prerequisite: MKT 340. Focus is on the special framework in which international marketing is conducted. Influence of international institutions, culture, stage of economic development, geography and demography are covered. Emphasis on multinational marketing problems and opportunities in an ever changing world.

MKT 445. Marketing Management (3) Prerequisite: MGT 350, MKT 341 and senior standing. Concepts of demand analysis, formulating marketing strategy, establishing policies and procedures, coordinating marketing action, and evaluating performance.

MKT 448. Sales Management (3) Prerequisite: MGT 350 and MKT 340. Focus on developing and maintaining an effective sales organization. Emphasis on the role of the salesperson, motivating the sales force, and designing and implementing selling strategies.

MKT 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

MKT 495. Senior Seminar (3) Prerequisite: MKT 340 and senior standing. Special topics in marketing not regularly addressed in other marketing courses.

MKT 498. Internship in Marketing (1-3) Prerequisite: Senior standing and consent of faculty supervisor. Involves the application of marketing knowledge in a "real world" setting. The participant receives hands-on experience under the joint guidance of a manager from a business or a not-for-profit organization and a faculty supervisor.

MKT 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

PRODUCTION AND DECISION SCIENCES

Dr. J. Anderson, Dr. Badarinathi, Mr. Burke, Dr. Garris, Dr. Gingrich, Ms. Honeycutt, Dr. Ilkansah.

Courses in the Department of Production and Decision Sciences provide for the study of operations and production management, quantitative business analysis, and business and management information systems. While primarily a support area for other degree programs in the Cameron School of Business Administration, the department provides instruction and study in the production processes of goods and services, the operations management area of business organizations and computer assisted information systems. Information systems management is a new and growing part of business and society and the courses in this area provide study of the expanding areas of computer assisted information systems and decision support systems.

Production and Decision Sciences Course Descriptions

(Department of Production and Decision Sciences)

PDS 217. Statistical Analysis for Business and Economics (3) Prerequisite: MAT 111. Classification and presentation of business and economics data, statistical inference including estimation and hypothesis testing procedures, Bayesian inference, correlation and regression analysis, expected value, time series, and index numbers.

PDS 313. Computer Applications in Business (3) Prerequisite: ACG 201. Introduction to information systems concepts and their application in the business environment. Utilization of spreadsheet, database, and graphics software in the analysis, structure and design of information systems.

PDS 314. Introduction to Managment Science (3) Prerequisite: MAT 151, PDS 217, ACG 201, and ECN 222., Deterministic and probabilistic models applied to economics and business decision theory. Topics include linear programming, inventory control, PERT/CPM, waiting lines, and simulation.

PDS 317. Production Management (3) Prerequisite: PDS 314 and MGT 350. Introduction to the situations operating managers face in the production-operations area. Analysis of concepts, tools and techniques, including production planning and control, materials management, inventory control, and managing the labor force. Particular attention directed to the study of different types of production processes.

PDS 416. Business Information Systems (3) Prerequisite: PDS 313 and MGT 350. A study of basic systems concepts and information concepts and their application to the analysis, design, implementation and evaluation of computer-based business information systems.

PDS 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

PDS 499. Honors Work (2-3) Prerequisite: Senior standing. Independent work for honors students.

SCHOOL OF EDUCATION

Roy E. Harkin, *Dean*
Calvin L. Doss, *Assistant to the Dean*

The School of Education at The University of North Carolina at Wilmington offers programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle Grades Education, and Special Education and programs leading to secondary (9-12) and special subjects (K-12) teacher certification. In addition, graduate programs in Elementary Education, Reading Education, Special Education and Educational Administration and Supervision are offered.

Responsibility for the degree and certification programs within the School of Education is shared by the Department of Educational Design and Management and the Department of Curricular Studies.

Students wishing to pursue teacher preparation programs must be formally admitted to the School of Education and to the Teacher Education Program. Requirements for admission are:

1. Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.
2. Completion of EDN 200, Teacher, School, and Society, with a grade of "C" or better.
3. Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point avesrage of 2.5 on a 4.0 scale.
4. Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

NOTE: Degree programs in Early Childhood Education, Intermediate Education, Middle Grades Education, Special Education, and Health and Physical Education are currently under review and are subject to changes resulting from recommendations of the North Carolina Task Force on the Preparing of Teachers. Beginning with the Fall Semester, 1990, students entering the School of Education ands the Teacher Education Program will be subject to these changes. Students should consult advisors regularly in order to incorporate these changes in their programs.

EDUCATIONAL DESIGN AND MANAGEMENT

Dr. Ellis, *Chairman.* Dr. Applefield, Dr. Bryan, Dr. Doss, Dr. Earle, Dr. Harkin, Dr. A. Hayes, Dr. Hulon, Dr. Johnston, Dr. Joslin, Dr. Mullendore, Dr. Wagoner.

The Department of Educational Design and Management provides basic professional education courses for the undergraduate programs in Elementary, Middle Grades, Secondary, and Special Education and is responsible for the program of study leading to the Master of Education degree in Educational Administration and Supervision.

The Master of Education program in Educational Administration and Supervision is described in the Graduate Studies section of this catalogue.

CURRICULAR STUDIES

Dr. H. Hayes, *Chairman.* Dr. Andrews, Dr. Bachner, Dr. Bartolome, Ms. Boslough, Dr. Burton, Dr. Jones, Dr. LaNunziata, Dr. Lockledge, DSr. Raab, Dr. Stephens, Dr. Thomas, Dr. Wright.

The Department of Curricular Studies is responsible for the programs of study leading to the Bachelor of Arts degrees in Elementary Education, Middle Grades Education, and Special Education, the programs leading to secondary (9-12) and special subjects (K-12) teacher certification, as well as the programs leading to the Master of Education in Elementary Education, in Reading Education, and in Special Education.

Within the Bachelor of Arts degree program in Elementary Education, a student may concentrate in Early Childhood Education, which leads to North Carolina teacher certification to teach in kindergarten through grade four, or in Intermediate Education, which leads to certification to teach in grades four through six.

The Bachelor of Arts program in Middle Grades Education leads to certification to teach in grades six through nine.

The Special Education program prepares teachers to serve mildly handicapped children from kindergarten through grade twelve in public schools and in various other service agencies and leads to North Carolina teacher certification in two areas of exceptionality: learning disabilities, and mental retardation.

Each degree program is designed to meet North Carolina State Board of Education guidelines for teacher certification and includes recommended courses in basic studies, professional education and collateral areas, and a content specialization. Adjustments in program requirements are made as guidelines change.

The Master of Education programs in Elementary Education, Reading Education, and Special Education are described in the graduate studies section of this catalogue.

DEGREE REQUIREMENTS FOR ELEMENTARY EDUCATION

Common Requirements for Early Childhood and Intermediate Education:

NOTE: The degree program in Elementary Education is currently under review and is subject to changes resulting from recommendations of the North Carolina Task Force on the Preparation of Teachers.

Basic Studies

Courses listed below are selected to meet North Carolina State Board of Education guidelines for elementary teacher certification. They only partially satisfy University basic studies requirements. To complete the University requirements, as listed on pages 69-71 of this catalog, additional courses in either the Humanities or Natural Science and Mathematics areas will be needed. However, these courses may be taken as part of the content specialization.

Basic Skills

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (twelve semester hours)
- Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
- Communication 105
- History, six semester hours from the following: History 101, 102, 201, 202

Creative Arts, (six semester hours)
- Art 201, 202, or 204, and Music 105 or 115

Natural Science and Mathematics (ten semester hours)
- Natural Sciences: one laboratory course from Biology, Chemistry, Geography, Geology, or Physics
- Mathematics 141 and 142

Social and Behavioral Sciences (six semester hours)
- Political Science 101
- Sociology/Anthropology 205

Collateral Requirements

ART 385	Art in the Elementary School
MUS 325	Music Education for Elementary Teachers
HEA 304	Health and Safety Education (K-9)
PHY 305	Science for Elementary Teachers
PED 386	Physical Education in the Primary Grades

Professional Core

PSY 216	Educational Psychology
PSY 220	Child Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Development I
EDN 202	Instructional Development II

Professional Semester

EDN 410	Seminar in Education (K-4, 4-6, 6-9, Special Education)
EDN 411	Practicum (K-4, 4-6, 6-9, Special Education)

Requirements for a concentration in Early Childhood Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations (K-9)
EDN 322	Teaching of Mathematics (K-4)
EDN 334	Social Studies Curriculum and Instruction (K-9)
EDN 336	The Teaching of Science (K-9)
EDN 344	Books and Materials for Early Childhood Education
EDN 348	The Communication Arts: Reading/Language Arts (K-4)

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listed below. Specialization in one of the four basic curriculum areas—Language Arts, Mathematics, Science, Social Studies—is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Art	Music
Health	Physical Education
Language Arts	Science
Mathematics	Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Professional Education Concentration. Students may repeat courses in which they earn a grade lower than "C" only with the permission of the Dean of the School of Education.

Requirements for a concentration in Intermediate Education for the B.A. Degree:

Professional Education

EDN 250	Reading Foundations (K-9)
EDN 323	Teaching of Mathematics (4-9)
EDN 334	Social Studies Curriculum and Instruction (K-9)
EDN 336	The Teaching of Science (K-9)
EDN 351	Language Arts Methods for the Middle School (4-9)

Collateral Requirements

ART 385	Art in the Elementary School
MUS 325	Music Education for Elementary Teachers
HEA 304	Health and Safety Education (K-9)
PHY 305	Science for Elementary Teachers
ENG 380	Literature for Children
PED 387	Physical Education in the Intermediate Grades (4-6)

Content Specialization

A content specialization comprised of 18 to 21 semester hours, including courses to fulfill basic studies and collateral requirements, must be completed in one of the areas listed below. Specialization in one of the four basic curriculum areas—Language Arts, Mathematics, Science, Social Studies—is recommended. Specific course options and credit hour requirements for each specialization are available from academic advisors and the department chairperson.

Art
Health
Language Arts
Mathematics
Music
Physical Education
Science
Social Studies

A grade of "C" or better is required in all courses in the Elementary Education Professional Core and Professional Education Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR MIDDLE GRADES EDUCATION

NOTE: The degree program in Middle Grades Education is currently under review and is subject to changes resulting from recommendations of the North Carolina Task Force on the Preparation of Teachers.

Basic Studies

Basic studies courses specified below are selected to meet North Carolina State Board of Education guidelines for Middle Grades teacher certification. They only partially satisfy University basic studies requirements listed on pages 68-69 of this catalog. To complete University requirements, additional courses in Humanities or Natural Science and Mathematics will be needed. However, such courses may be taken as part of the content specialization.

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
Physical Education 101
Humanities (12 semester hours)
Literature, three semester hours from the following: English 110, 210, 211, 212, 219, 230, 250
Communication 105
History
Six semester hours from the following: History 101, 102, 201, 202
Creative Arts (three semester hours)
One from Art 201, 202, 204, Music 105 or 115
Natural Science and Mathematics (10 semester hours)
Natural Sciences: one laboratory course from Biology, Chemistry, Geography, Geology, or Physics
Mathematics 141 and 142
Social and Behavioral Sciences (three semester hours)
Political Science 101

Collateral Requirements

Cultural Arts
Select six semester hours from the following: Art 201, 202, 204, 307, 385; Drama 130, 135, 136, 221, 225; Music 116, 117, 118, 361-62-63

Health and Physical Education
Health 304, Health and Safety Education (K-9)

Professional Core

PSY 221	Adolescent Psychology
EDN 200	Teacher, School and Society
EDN 201	Instructional Program Development I
EDN 202	Instructional Program Development II

Professional Semester

EDN 410	Seminar in Education
EDN 411	Practicum

Requirements for a concentration in Middle Grades Education for the B.A. Degree:

Professional Education

EDN 318	The Middle School
EDN 250	Reading Foundations, (K-9)

Content Specialization

Two content area specializations must be selected, at least one of which must be from the four basic curriculum areas—Language Arts, Mathematics, Science, Social Studies. Specific course options and credit hour requirements are available from advisors or the department chairperson. A grade of "C" or better is required of all courses in the Professional Core and Professional Education concentration. Students may repeat courses in which they earned a grade of lower than "C" only with the permission of the Dean of the School of Education.

DEGREE REQUIREMENTS FOR SPECIAL EDUCATION

NOTE: The degree program in Special Education is currently under review and is subject to changes resulting from recommendations of the North Carolina Task Force on the Preparation of Teachers.

General Requirements in Special Education:

Basic Studies

English Composition (six semester hours)
- English 101
- English 102

Physical Education (two semester hours)
- Physical Education 101

Humanities (12 semester hours)
- History 101 or 102
- History 201 or 202
- Communication 105
- English 110, 210, 211, or 212

Creative Arts (six semester hours)
Choose two courses from two different areas
- Art 201, 202, or 204
- Drama 221 or 225
- Music 115

Natural and Mathematical Sciences (13 semester hours)
Natural Science
Choose 2 courses from 2 different science areas. One course must be a lab science.
- Biology 105
- Chemistry 103
- Geography 130 or 230
- Geology 101, 120, or 150
- Physics 105

Mathematical Sciences
- Mathematics 141 and 142

Social and Behavioral Sciences (six semester hours)
Choose two courses from two different areas.
- Economics 125
- Political Science 101
- Sociology 105, Anthropology 105, or Geography 140

Professional Core

EDN 200 Teacher, School, and Society
EDN 201 Instructional Program Development I
EDN 202 Instructional Program Development II
EDN 250 Reading Foundations (K-9)
EDN 322 Teaching of Mathematics (K-4)
or
EDN 323 Teaching of Mathematics (4-9),
PSY 216 Educational Psychology
PSY 323 Life Span Human Development

Requirements for a concentration in Special Education for the B.A. Degree:

EDN 260	Introduction to Exceptional Children
EDN 364	Mental Retardation in School and Society
EDN 366	Learning Disabled Children and Adolescents
EDN 367	Behavior Management Techniques
EDN 368	Diagnostic Techniques in Special Education
EDN 369	Prescription Development in Special Education
EDN 370	Behaviorally Disordered Children and Youth
EDN 374	Special Education Curriculum and Instruction
EDN 410	Seminar
EDN 411	Practicum
PSY 322	Psychology of Exceptional Children

Content Specialization

Twelve semester hours, in addition to courses used to fulfill Basic Studies and Professional Core requirements, in one of the following areas:

Art	Psychology	English
Music	Recreation	Mathematics
Elementary Education	Sociology	Social Studies
Physical Education		Science

A grade of "C" or better is required in all courses in the Professional Core and Special Education Concentration. Students may repeat courses in which they earned a grade lower than "C" only with the permission of the Dean of the School of Education.

Teacher Certification Program in Secondary and Special Subjects

Programs leading to teacher certification are offered in the secondary (9-12) fields of Biology, Chemistry, Geology, English, French, History, Mathematics, Physics, and Spanish, and in the special subject (K-12) fields of Health and Physical Education. Also, students who concentrate in History, Political Science or Sociology may fulfill subject matter requirements for Social Studies certification by completing a minimum of 21 semester hours in three Social Studies areas other than the discipline of major concentration.

Students who concentrate in Biology, Chemistry, Earth Science or Physics may fulfill requirements for Science certification by completing 21-23 semester hours in three science areas other than the discipline of major concentration. Students wishing to prepare themselves as secondary teachers are required to fulfill degree requirements in an appropriate academic discipline and to complete the following sequence of professional courses:

PSY 216	Educational Psychology
PSY 221	Adolescent Psychology
EDN 200	Teacher, School, and Society
EDN 201	Instructional Program Development I
EDN 356	Reading in the Secondary School
EDN 408	Instructional Methods
EDN 409	Practicum

Students must take all the professional courses listed above preceding EDN 408 and 409 and earn a grade of "C" or better before the student teaching semester. Students seeking secondary teacher certification must be formally admitted to the Teacher Education Program prior to the student teaching semester. Standards for admission are:

(1) Completion of the University requirements in English and mathematics and a natural science laboratory course with a grade of "C" or better in each course.

(2) Completion of EDN 200, Teacher, School and Society, with a grade of "C" or better.
(3) Completion of four semesters or two academic years of full-time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale.
(4) Passing scores on teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

Education Course Descriptions

EDN 200. Teacher, School, and Society (4) Introduction to profession of teaching that acquaints prospective teachers with diverse roles of teachers. Focuses on teacher as decision-maker; careers in education; social, historical and philosophical foundations of education; governmental and organizational aspects of schools; and current and future trends in American education. Observation skills are developed through field experience. Three hours of small group instruction, one hour of large group instruction, and a minimum of one hour of off-campus observation each week.

EDN 201. Instructional Program Development I (3) Prerequisite: Education 200 or permission of department chairman. The first of a two-part sequence designed to provide the conceptual tools and analytic skills necessary to plan, implement, and evaluate instructional programs. This course will focus on the fundamental components of instructional development for teachers. Topics of study include instructional theory, types of learning, instructional objectives, planning strategies, task analysis, organization for instruction, and design of instructional systems. Three hours each week.

EDN 202. Instructional Program Development II (3) Prerequisite: Education 201. The second of a two-part sequence in instructional design, this course will develop further the specific skills in instructional development, critical analysis, and communication. Topics of study include selection and evaluation of instructional resources, design of feedback systems, measurement, and data organization and interpretation. Three hours each week.

EDN 250. Reading Foundations (K-9) (3) A foundations course for all elementary and special education majors. Emphasis on linguistic and psychological bases of the reading process, stages in the development of reading ability, and sequences of skill acquisition. Students will study models of reading instruction, the role of the classroom teacher of reading, and forces influencing that role. Three hours each week.

EDN 260. Introduction to Exceptional Children (3) Survey of major categories of exceptionalities including giftedness, mental retardation, hearing impairments, visual impairments, learning disabilities, communication disorders, emotional handicaps, and physical handicaps. Includes definitions, characteristics, etiology, psycho-social implications, and educational intervention of each exceptionality. Three hours each week.

EDN 310. School-Community Relations (3) Methods of improving school-community relations. Three hours each week.

EDN 311. Student Leadership in Higher Education (1) Develops an understanding of leadership theories and skills and their utilization in practical settings. Topics include: (a) realizing the impact of student leadership, (b) understanding leadership theories,

(c) developing a leadership style, (d) improving leadership skills, (e) use of the situational leadership model, and (f) working with a variety of personality types. One hour each week.

EDN 318. The Middle School (3) An overview of the conceptual and historic development of the middle school. Major emphasis on exploring the educational implications of the developmental characteristics of middle grade learners. The multiple roles of the middle grades teacher, special needs of exceptional students, and organizational/management approaches will be stressed. Three hours each week.

EDN 319. Individualizing Instruction (3) Prerequisite: Education 201 and Psychology 216. This course will focus on strategies for meeting needs of individuals in the regular classroom. Students will study alternative methods for dealing with pupil differences that have an impact on learning. Characteristics of children with academic, intellectual, social-emotional, physical, cultural and language differences will be examined. Three hours each week.

EDN 322. The Teaching of Mathematics, (K-4) (3) Prerequisite: Education 201 and six semester hours of appropriate mathematics. Study of methods and materials for the teaching of mathematics at the kindergarten through fourth grade level. Logical, psychological, and sociological considerations for the teaching of mathematics. Three hours each week.

EDN 323. The Teaching of Mathematics, (4-9) (3) Prerequisite: Education 201 and six semester hours of appropriate mathematics. Focus on materials and methods for teaching mathematics in grades 4-9. Logical, psychological and sociological considerations of the teaching of mathematics. Examination of curricula appropriate at the intermediate and middle school levels. Three hours each week.

EDN 324. Diagnostic Teaching of Mathematics (3) Understanding of psychological and environmental factors that affect learning of school mathematics. Focus on methods and materials appropriate to diagnosis and remediation of mathematics difficulties common at the 6-9 level. Awareness of strategies effective for enhancing self-confidence in mathematics learning. A field based activity is required. Three hours each week.

EDN 334. Social Studies Curriculum and Instruction (K-9) (3) Prerequisite: Education 201, and six hours of social studies content. An overview of curriculum content and various ways of organizing it will be emphasized. The implications of learner developmental characteristics for selecting approaches to instruction in social studies will be explored. Topic selections and sequencing of curriculum will be examined as will the connections between social studies and the social sciences. The course will examiine the places of concept learning, generalizations, and factual knowledge in social studies curriculum. Three hours each week.

EDN 335. Social Studies Education in the Middle Grades (3) Examines the specific ways in which social studies curriculum can be organized to meet the learning needs of middle grades students. Instructional strategies which emphasize problem solving, values investigation, identify bias and interpretation, and the relevance of social inquiry to the real world will be stressed. Three hours each week.

EDN 336. The Teaching of Science (K-9) (3) Prerequisite: Education 201, Physics 305, or two science laboratory courses. Designed for Elementary Education majors seeking certification at the K-9 level. Methods of teaching the biological and physical

sciences. Applications of the sciences to classroom experimentation and investigation. Examination of contemporary curricula used at the elementary and middle school level. Three hours each week.

EDN 337. Inquiry–The Method of Science (3) Prerequisite: A course in science methods or the completion of 15 hours toward a concentration or major in science or permission of instructor. Assumes initial level competency in curriculum and methods of science. Focuses on conceptualization of and rationale for using inquiry method of teaching science. Provides opportunities to acquire and practice skills needed to utilize method and to guide scientific investigation at K-12 levels.

EDN 344. Books and Materials for Early Childhood Education (3) The selection and evaluation of books written for children. Appraisal of illustrations and other instructional media for preschool and primary children, their functions and correlation with the early childhood curriculum will be studied. Three hours each week.

EDN 348. The Communication Arts: Reading/Language Arts (K-4) (3) Prerequisite: Education 201 and 250. An understanding and appreciation of children's language capabilities at school entrance and patterns of language growth through early school years will be developed. Various approaches to school language instruction will be examined. Students will learn strategies and methods for promoting growth in speaking, listening and writing in primary classrooms. Building on the reading foundations course, students will learn how to teach children and how to integrate reading and language experience. They will have extensive opportunities to assess, teach, and evaluate all areas of children's language and reading development in actual public school classroom. Three hours each week.

EDN 351. Language Arts Methods for the Middle School (4-9) (3) Prerequisite: Education 201 and 250. The status and process of reading/language growth of middle grade children will be studied. Building on the reading foundations course, students will learn how to extend basic reading skills and more specialized content reading skills. They will learn how to foster development of speaking, listening and writing skills as well as children's understanding of the structure and conventions of their language. Students will teach a variety of supervised lessons using an integrated reading/language arts approach as well as individualized instruction model. Three hours each week.

EDN 355. Developing Reading Competence in the Middle School (3) Prerequisite: Education 202, and Psychology 221 or Education 318. Presents background and methodology for fostering and evaluating reading abilities of intermediate and middle school level students, both in language arts classes and in other subjects. Topics include comprehension and study skills needed for reading to learn in all areas of the curriculum, organizational and managerial strategies for reading instructionin grades 4-9, and techniques for motivating reluctant readers. Field experiences required. Three hours each week.

EDN 356. Reading in the Secondary School (3) Prerequisite: Education 201. Required course in the teaching of reading for secondary majors. Basic instructional reading strategies are developed, with emphasis on introducing assignments, improving study skills, and fostering critical thinking. Students identify and learn to teach reading skills specific to varying content areas. Adjusting instruction to students' reading capabilities is stressed. Three hours each week.

EDN 364. Mental Retardation in School and Society (3) Examination of field of mental retardation from an educational perspective. Study of etiology, definitions, characteristics, and historical and current approaches to the education of the mentally retarded. Includes study of all levels of severity of mental retardation. Three hours each week.

EDN 366. Learning Disabled Children and Adolescents (3) Examination of the field of learning disabilities. Emphasis on the concept of learning disabilities, etiology, diagnosis, characteristics, teaching strategies, theory, historical influences, and current trends. Three hours each week.

EDN 367. Behavior Management Techniques (3) Prerequisite: Education 200 or 201 or consent of instructor. Designed to develop an understanding of the principles of behavior and their application in planning and implementing various behavior management strategies. Focus will be on observation and measurement of social behavior management techniques in the special education and regular education classroom.

EDN 368. Diagnostic Techniques in Special Education (3) Prerequisite: Education 201 and one of the following: Education 260, 364, or 366. Examination of concept and fundamentals of educational assessment. Includes examination of formal and informal diagnostic techniques appropriate for mildly handicapped children. Includes assessment of intellectual functioning, reading, mathematics, written expressions, spoken language, perception, and social-emotional skills. Three hours each week.

EDN 369. Prescription Development in Special Education (3) Prerequisite: Education 201 and 368. Development of skill in planning educational programs for exceptional children. Includes writing instructional objectives, selecting appropriate materials and techniques, writing lesson plans, and formulating individual educational programs. Three hours each week.

EDN 370. Behaviorally Disordered Children and Youth (3) Prerequisite: Education 200 and 201 or consent of the instructor. Designed to examine the wide and complex variety of learners labeled as "behaviorally disordered" or "emotionally disturbed". Topics related to historical, theoretical, etiological, developmental, and symptomological issues plus diagnosis, identification and major teaching strategies will be introduced. Program and parent involvement models and current trends and issues will be reviewed. Three hours each week.

EDN 371. Programming and Interventions for Behavioral Disordered Students (3) Prerequisite: Education 370 and Education 367. Examination of problems, issues and practices in developing programs for and educating students with behavioral disorders. Emphasis on assessment strategies, academic and social needs, major interventions, family involvement, scheduling issues, applied behavior analysis, systematic/directive teaching, and service delivery options. Legal considerations, consultation strategies and curriculum issues will be reviewed.

EDN 372. Programming and Interventions for Learning Disabled Students (3) Prerequisite: Education 366. Study of the characteristics of learning disabled students and their educational implications. Emphasis on service delivery options, needs of LD individuals relevant for instruction, medical interventions, behavioral interventions, family involvement, pre-school programming, secondary programming, remediation strategies, and compensation strategies.

EDN 373. Programming and Interventions for Mentally Handicapped Students (3) Prerequisite: Education 364 or Education 260. Study of the characteristics of persons with mental retardation and the implications of these characteristics for programming. Emphasis will be on programs in school, community, and institutional settings. Needs of persons with mental retardation during the preschool, school, and postschool years will be studied.

EDN 374. Special Education Curriculum and Instruction (3) Prerequisite: Education 250, Education 322/323, Education 260 and at least one of the following: Education 364, 366, 370. Study of the curriculum areas and instructional techniques utilized in educational settings for learning disabled, mentally retarded, and behaviorally/emotionally handicapped students. Emphasis on curriculum development processes, design of lesson and unit plans, selection of materials, identification of instructional procedures, data-based decision making, and consultation with other educators of exceptional learners.

EDN 404. Basic Philosophies of Education (3) Philosophies of education and their influence on the curriculum. Three hours each week.

EDN 407. Teaching Practices and Techniques (3) Development of techniques of teaching: successful practices in teaching. Three hours each week.

EDN 408. Instructional Methods (6) Corequisite: Education 409. Prerequisite: Education 200, 201, (or departmentally approved equivalents) and 356; Psychology 216 and 220 or 221 as appropriate and permission of the School of Education. Intensive examination of instructional methods in the student's area of specialization. Activities will be related to the student's practicum assignment, and emphasis will be placed on the development of instructional plans to be implemented in the practicum setting. Areas of specialization: English; French; Health; Mathematics; Physical Education; Science; Social Studies; Spanish.

EDN 409. Practicum (9) Corequisite: Education 408. Prerequisite: As specified for Education 408. Students will be assigned full-time to practicum sites within their areas of specializations. During the course, students will engage in a variety of supervised instructional activities, assuming increasingly wider responsibility for class instruction. Practica are offered in the areas of specialization listed above under Education 408.

EDN 410. Seminar in Education, (K-4; 4-6; 6-9, Special Education) (3) Corequisite: Education 411. Prerequisite: All courses in the professional core and those professional courses appropriate for the concentration for K-9 majors and Special Education majors. Designed as a culmination of professional study and an initiation into student teaching and the teaching profession. Provides opportunities to extend and apply understandings of the roles of the teacher as a decision-maker, particularly in the areas of planning, instruction, management, and evaluation.

EDN 411. Practicum, (K-4; 4-6; 6-9, Special Education) (12) Corequisite: Education 410. Prerequisite: As specified for Education 410. A full time practicum experience within the area of specialization. Students will engage in a variety of supervised instructional activities, assuming an increasing amount of responsibility for all phases of classroom instruction. Practica are offered in the areas of Early Childhood Education (K-4), Intermediate Education (4-6), Middle Grades Education (6-9), and Special Education.

EDN 412. Extended Practicum (3-6) Prerequisite: Appropriate curriculum and instruction courses and permission of the chairperson of the Department of Curricular Studies. A part-time practicum experience within the appropriate area of certification. Students will engage in supervised instructional activities that extend their understandings and teaching performance to an additional area of preparation. Areas of specialization include elementary, middle grades, special education, and secondary education.

EDN 415. Education Media Design and Production (3) This course will provide students with an understanding of the design principles underlying the production of instructional materials and with the necessary production techniques. Emphasis will be placed upon the production of materials and their effective integration into an instructional unit. Students will design, produce, and evaluate a number of projects using techniques common to media programs in public schools and the authors who have made contributions to this field. Three hours each week.

EDN 416. Instructional Applications of Computers (3) Prerequisite Education 201. Designed to develop skills in using computers as tools in instruction and to make judgments about instructional materials designed for use on computers. Topics include: (a) introduction to computing systems, (b) introduction to microcomputer programming languages, (c) authoring languages, (d) judging instructional "software", (e) using computers to manage classroom records, (f) using computers in instruction, and (g) teleprocessing and automated data bases. Activities will include group lectures, demonstrations, and discussions, projects in software designed for classroom management and instruction. The major focus is on microcomputer application. Three hours each week.

EDN 430. Preschool Curriculum (3) Prerequisite: Education 201. Provides students the understandings, skills and abilities necessary to implement an effective preschool program. Emphasis placed on knowledge of the curriculum content and the effective combinations and correlations of these contents for a preschool program. Activities include lectures, discussions, demonstration, individual, and group projects. Three hours each week.

EDN 431. Teaching in the Primary Grades (3) Designed to develop a broad overall view of teaching in the primary grades. The course includes examination of the history, current "state of the art" and possible future of primary education. Focus is on the application of knowledge of child development and learning theories in organizing and implementing the primary school curriculum in an integrated and interdisciplinary fashion. Study of classroom organization and management for effective teaching in the primary grades will be undertaken. Three hours each week.

EDN 432. Interdisciplinary Curriculum and Instruction (3) Examines principles of interdisciplinary curriculum and instruction and explores its appropriateness for middle grades and intermediate students. Alternative approaches to designing interdisciplinary curriculum and instruction such as thematic units and exploratory and interest-based study will be examined. Emphasizes the possible linkages among the disciplines, focusing on thinking and communication skills, concept and problem solving learning, as well as values clarification/resolution. Three hours each week.

EDN 446. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of materials published for classroom use in the public schools and the authors who have made contributions to the field. Three hours each week.

EDN 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing and consent of department chairman.

EDN 495. Selected Topics in Education (1-3) Prerequisite: Junior or senior standing. Selected topics in education of varying duration and credit. May be repeated for a maximum of 6 semester hours.

EDN 499. Honors Work in Education (2-3) Prerequisite: Senior standing. Independent study for honors students.

For trial course offerings designated 292 and 492, see explanation on p. 70.

SCHOOL OF NURSING

Marlene M. Rosenkoetter, *Dean*

Bachelor of Science Degree

Ms. Downs, Ms. Gilliland, Dr. Gray, Ms. Liebermann, Ms. Lowe, Ms. Majette, Ms. Payne, Ms. Pittman, Ms. Smith, Ms. Stone.

The School of Nursing at The University of North Carolina at Wilmington offers a program leading to the Bachelor of Science degree with a concentration in professional nursing. The purpose of this baccalaureate program is to prepare a generalist who possesses the knowledge, skills, and attitudes with which to practice family-centered professional nursing in a variety of current and emerging health care delivery systems. In addition, the program is designed to provide a foundation for graduate nursing education. Through interactions with clients—individual persons, families and communities—and other health care professionals, nursing graduates will contribute toward meeting the wide-ranging needs of the region, state, and the larger community.

Program Objectives

The graduate of The University of North Carolina at Wilmington baccalaureate program in nursing is able to:

(1) Practice family-centered professional nursing based upon a conceptual framework in a variety of settings.

(2) Interact with individuals, families, and communities to promote an environment conducive to health.

(3) Utilize the nursing process in the delivery of health care to individuals, families, and communities.

(4) Base professional practice upon a synthesis of knowledge from social, behavioral, and natural sciences, nursing theory and research.

(5) Demonstrate commitment and accountability to health care consumers and to professional standards.

(6) Function as a self-directed learner who assumes responsibility for continued personal and professional growth.

(7) Assume a leadership role in the provision and coordination of health care through collaborative relationships with other health care professionals.

(8) Influence present and emerging roles of nursing practice to meet the health care needs of a changing society.

(9) Stimulate change within clients and health care delivery systems to more effectively promote the health of the community.

Degree Requirements for Bachelor of Science Degree
Concentration in Nursing
SAMPLE SCHEDULE
FIRST YEAR

Fall Semester

			Hours
ENG	101	English Composition	3
PED	101	Found. of Physical Activity	2
PSY	105	General Psychology	3
MAT	111	Precalculus Mathematics	3
CHM	115	Fund. of General Chemistry	4
TOTAL			15

Spring Semester

			Hours
ENG	102	English Composition	3
SOC	105	Intro. to Sociology	3
CHM	215	Organic/Biologic Chemistry	4
Humanities Electives			6
TOTAL			16

SECOND YEAR

Fall Semester

			Hours
BIO	240	Human Anatomy & Physiology	4
PSY	323	Lifespan Human Development	3
Creative Arts Elective			3
Humanities Elective			3
Free Elective			3
TOTAL			16

Spring Semester

			Hours
BIO	241	Human Anatomy & Physiology	4
BIO	246	Microbiology of Human Diseases	4
SOC	345	Sociology of the Family	3
+NSG	115	Intro. to Contemporary Nursing*	1
Humanities or Creative Arts Electives**			3
TOTAL			15

Summer Session I

			Hours
NSG	200	Intro. to Nursing Assess/Int. I	2
NSG	200-51	Intro. to Nursing Assess/Int. I Laboratory	1
TOTAL			3

Summer Session II

			Hours
NSG	250	Intro. to Nursing Assess/Int. II	2
NSG	250-51	Intro. to Nursing Assess/Int. II Laboratory	1
TOTAL			3

* **Can be taken concurrently with NSG 200 (transfer students)**

** **12 hours Humanities and 3 hours Creative Arts, or 9 hours Humanities and 6 hours Creative Arts.**

\+ **A minimum grade of "C" is required in each nursing course.**

THIRD YEAR

Fall Semester	Hours	Spring Semester	Hours
NSG 300 Nursing Process I	5	NSG 350 Nursing Process II	5
NSG 300-51 Nursing Process I Laboratory	3	NSG 350-51 Nursing Process II Laboratory	3
NSG 310 Interactions in Nursing Prac. I	3	NSG 360 Interactions in Nursing Prac. II	3
NSG 315 Nature of Man & Health in Modern Society	3	STT 210 Intro. to Statistics with Applications in Health Sciences	3
Free Elective (or senior year)	(3)		
TOTAL	14-17	TOTAL	14

FOURTH YEAR

Fall Semester	Hours	Spring Semester	Hours
NSG 400 Nursing Process III	4	NSG 450 Nursing Process IV	5
NSG 400-51 Nursing Process III Laboratory	3	NSG 450-51 Nursing Process IV Laboratory	3
NSG 410 Interactions in Nursing Practice III	3	NSG 460 Interactions in Nursing Practice IV	3
NSG 415 Research in Nursing	3	NSG 490 Advanced Nursing Practicum	1
TOTAL	13	Free Elective (or junior year)	(3)
		TOTAL	12-15

TOTAL HOURS: 57 hours - Concentration in Nursing (46%)
67 hours - Basic Studies and Collateral (54%)

Admission to the School of Nursing is dependent on University admission, recommendation of the Committee for Student Affairs of the School of Nursing, approval of the nursing faculty and meeting admission criteria, including the completion of required prerequisite courses.

Time Limits: Nursing courses must be completed within a consecutive six calendar year period of time.

Ten-Year Rule: Non-nursing courses which are more than ten years old will be evaluated by the School of Nursing faculty for currency and credit.

RN ACCESS Program For Registered Nurses

Prerequisite Courses	Hours
ENG 101 English Composition	3
ENG 102 English Composition	3
MAT 111 Precalculus Mathematics	3
PED 101 Fundamentals of Physical Activity	2
CHM 115 Fundamentals of General Chemistry	4
CHM 215 Organic/Biologic Chemistry	4
BIO 240 Human Anatomy and Physiology	4
BIO 241 Human Anatomy and Physiology	4
BIO 246 Microbiology of Human Diseases	4
PSY 105 General Psychology	3
PSY 323 Lifespan Human Development	3
SOC 105 Introduction to Sociology	3
SOC 345 Sociology of the Family	3
STT 210 Intro. to Statistics with Application in the Health Sciences*	3
Humanities Electives	9
Creative Arts Electives	3
Humanities or Creative Arts Electives	3
Free Electives*	6
TOTAL PREREQUISITE CREDITS	67 (54%)

* STT 210 and one three-credit free elective may be taken concurrently with nursing courses.

Degree Requirements for Bachelor of Science Degree

Concentration in Nursing

RN ACCESS Program

SAMPLE SCHEDULE*

Summer Session I		Hours	Summer Session II		Hours
NSG 219	Interactions in Contemporary Nursing I	3	NSG 250	Introduction to Nursing Assessment and Interven. II	2
			NSG 250-51	Intro. to Nursing Assessment and Interven. II Lab	1
	TOTAL	3		TOTAL	3

Fall Semester		Hours	Spring Semester		Hours
NSG 379	Interactions in Contemporary Nursing II	1	NSG 450	Nursing Process IV	5
NSG 389	Nursing Process in Contemporary Nursing	3	NSG 450-51	Nursing Process IV Lab	3
NSG 389-51	Nursing Process in Contemporary Nursing Lab	3	NSG 460	Interactions in Nursing Practice IV	3
NSG 410	Interactions in Nursing Practice III	3	NSG 490	Advanced Nursing Practicum	1
NSG 415	Research in Nursing	3		TOTAL	12
	TOTAL	13			

Credit by Placement	26
Nursing Concentration Credits	31
Total Nursing Hours	57 (46%)

* NOTES

1. Courses numbered above 400 are taken with students in the generic baccalaureate program.

2. Registered nurses admitted to the RN ACCESS Program of the UNC-Wilmington School of Nursing are required to verify their previous nursing education and experience by achieving a satisfactory score on the National League for Nursing Mobility Profile II tests and a clinical verification examination. Schedules for test dates are available in the office of the Director, RN ACCESS Program. The Nursing Mobility Profile II consists of three tests:

a. Care of the Adult Client
b. Care of the Client during Childbearing/Care of the Child
c. Care of the Client with Mental Disorder

A fee is charged for these tests.

A total of 26 semester hours of placement credit will be awarded to registered nurses upon satisfactory completion of all examinations.

3. Additional information can be obtained from the Director, RN ACCESS Program, UNC-Wilmington, School of Nursing (919) 395-3723.

BACHELOR OF SCIENCE DEGREE

Nursing Course Descriptions

NSG 115. Introduction to Contemporary Nursing (1) Prerequisite: Sophomore status. Open to non-nursing majors with consent of instructor. An overview of the historical development of nursing with discussion of significant persons, issues and events. Nursing education alternatives, various roles of professional nurses in contemporary practice, basic legal/ethical issues, and criteria which differentiate professional practice are described. Introduces the conceptual framework of the UNCW baccalaureate nursing program. One hour each week.

NSG 200. Introduction to Nursing Assessment and Intervention I (2) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200-51. An introduction to concepts and techniques of professional nursing practice. Includes concepts of nursing process, role, health, illness, communication, self-awareness, growth and development, responsibility and accountability, change, needs, client teaching, leadership, prevention, and nursing research. Selected basic nursing techniques associated with these concepts are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSG 200-51. Introduction to Nursing Assessment and Intervention I Laboratory (1) Prerequisite: Admission to the School of Nursing. Corequisite: Nursing 200. Provides the opportunity for clinical application of the introductory concepts and techniques of professional nursing practices which are taught in Nursing 200. Students apply these concepts with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 250. Introduction to Nursing Assessment and Interventions II (2) Prerequisite: Nursing 200, 200-51 or Nursing 219. Corequisite: Nursing 250-51. An introduction to the concepts and techniques of health assessment including interviewing and history-taking, developmental assessment, psychosocial assessment, and physical assessment. Nursing process provides the major framework for focusing on assessment of individual adults and identifying opportunities for primary prevention. Assessment techniques are practiced in the Simulation Laboratory. Three lecture and ten simulation laboratory hours each week (summer session).

NSG 250-51. Introduction to Nursing Assessment and Interventions II Laboratory (1) Prerequisite: Nursing 200, 200-51 or Nursing 219. Corequisite: Nursing 250. Provides the opportunity for clinical application of introductory concepts and techniques of health assessment which are taught in Nursing 250. Assessments are performed with individual adult and geriatric clients in various stages of health. Thirteen hours clinical laboratory each week (summer session).

NSG 300. Nursing Process I (5) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300-51. Focuses on utilization of the nursing process with families, incorporating communication patterns, family development and the professional nurse's role in primary prevention with families. Basic research findings are incorporated and additional nursing techniques are acquired. Beginning concepts of secondary prevention are introduced. Five hours each week.

NSG 300-51. Nursing Process I Laboratory (3) Prerequisite: Nursing 115, 250, 250-51. Corequisite: Nursing 300. Provides the opportunity for clinical application of the concepts and techniques which are taught in Nursing 300. The nursing process is utilized with families in all phases of the life cycle, focusing on primary prevention. Selected secondary prevention related to screening in healthy populations is implemented. Twelve hours clinical laboratory each week.

NSG 310. Interactions in Nursing Practice I (3) Prerequisite: Nursing 250, 250-51. Prerequisite or Corequisite: Nursing 300, 300-51. Emphasizes elements of the teaching-learning process and related principles of change, decision-making, communication and assertiveness. Selected literature is reviewed, as a teaching project is implemented with a designated family. Three hours each week.

NSG 315. Nature of Man and Health in Modern Society (3) Prerequisite: Nursing 115, 250, 250-51. Establishes a foundation for the professional nursing role through an examination of selected historical events, legal and ethical frameworks for practice,

standards for nursing, key issues in health care, current issues in nursing, nursing theories, and models of nursing care delivery. Three hours each week.

NSG 350. Nursing Process II (5) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350-51. Focuses on utilization of the nursing process with families who have a member in an acute care setting. A foundation is developed for secondary prevention, including pathophysiology, psychopathology, relevant theories and research, and nursing roles and functions. Additional nursing techniques needed for secondary prevention are required. Five hours each week.

NSG 350-51. Nursing Process II Laboratory (3) Prerequisite: Nursing 300, 300-51, 310, 315. Corequisite: Nursing 350. Provides the opportunity for clinical application of the concepts and techniques taught in Nursing 350. The nursing process is utilized with families who have a member in an acute care setting, focusing on secondary prevention. Twelve hours clinical laboratory each week.

NSG 360. Interactions in Nursing Practice II (3) Prerequisite: Nursing 310, 315. Corequisite: Nursing 350, 350-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership, and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. Teaching-learning principles are applied with a group of clients. Three hours each week.

NSG 400. Nursing Process III (4) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400-51. Focuses on utilization of the nursing process with families who have a member in a critical care setting and development of a framework for more advanced secondary prevention. Beginning concepts of tertiary prevention are introduced and additional nursing techniques pertaining to advanced secondary prevention are acquired. Four hours each week.

NSG 400-51. Nursing Process III Laboratory (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400. Provides the opportunity for clinical application of the advanced secondary prevention concepts and techniques which are taught in Nursing 400. The nursing process is utilized with families who have a member experiencing a life-threatening illness or crisis. Twelve hours clinical laboratory each week.

NSG 410. Interactions in Nursing Practice III (3) Prerequisite: Nursing 350, 350-51, 360. Corequisite: Nursing 400, 400-51. Prerequisite or Corequisite: Nursing 379, 389,389-51. Emphasizes elements of community assessment and related principles of epidemiology, health planning, social and political change, environmental management, and levels of prevention. Community resources and data sources are incorporated into the implementation of an assessment for a selected community. Three hours each week.

NSG 415. Research in Nursing (3) Prerequisite: Statistics 210, Nursing 350, 350-51, 360. Prerequisite or Corequisite Nursing 379, 389, 389-51. Examines research process as applied to nursing. Research terminology, methodology, and applicability of research findings for clinical practice are emphasized. Computer uses and ethical decision-making are incorporated. Principles of research are applied in developing a preliminary proposal for a nursing research project of limited scope.

NSG 450. Nursing Process IV (5) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450-51, 460. Focuses on the utilization of

the nursing process with individuals, families, and groups who have and groups who have complex health needs. A conceptual framework for clinical practice based on related beliefs, theories, and research is developed, and provides the foundation for the role of the nurse in tertiary prevention. Five hours each week.

NSG 450-51. Nursing Process IV Laboratory (3) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450, 460. Provides the opportunity for the clinical application of concepts and techniques taught in Nursing 450 and Nursing 460. The nursing process is utilized with individuals, families, and groups who have complex health needs, and the student assumes responsibility for coordinating or directing the care of a group of clients. Twelve hours clinical laboratory each week.

NSG 460. Interaction in Nursing Practice IV (3) Prerequisite: Nursing 400, 400-51, 410 or Nursing 389, 389-51, 410. Corequisite: Nursing 450, 450-51. A seminar focusing on nursing leadership and management for the professional nurse. Included are: related concepts and theories of organization, change, power and authority, and role development; models of nursing care delivery; legal ramifications of delegation; models of quality assurance; computer applications in nursing management; and transitional issues for the graduate. Three hours each week.

NSG 490. Advanced Nursing Practicum (1) Prerequisite: Nursing 400, 400-51, 410, 415 or Nursing 389, 389-51, 410, 415. Provides the opportunity for clinical application of the nursing process to a selected area of nursing practice as the student integrates the concepts of research, prevention, and change into a clinical project. Emphasis on further development of nursing skills, knowledge and leadership, and establishing collegial relationships. Four hours clinical practicum each week.

NSG 491. Directed Individual Study (1-3) Prerequisite: Junior or senior standing; consent of instructor; Nursing 300, 300-51 or Nursing 389, 389-51.

NSG 499. Honors Work in Nursing (2-3) Prerequisite: Eligibility for honors program; Nursing 300, 300-51 or Nursing 389, 389-51. Individual study for honors students.

Courses for Registered Nurses Only

NSG 219. Interactions in Contemporary Nursing I (3) Prerequisite: Admission to the RN ACCESS Program in the School of Nursing. An overview of fundamental concepts for professional nursing practice. Emphasizes nursing process, health, illness, communication, responsibility and accountability, leadership, prevention, change, decision-making and research in professional nursing practice. Introduces nursing theories and the conceptual framework of the UNCW baccalaureate Nursing Program. A teaching project is implemented with an individual client. Ten lecture hours per week (summer session).

NSG 379. Interactions in Contemporary Nursing II (1) Prerequisites: Nursing 219, 250 and 250-51. Emphasizes elements of group process and related principles of decision-making, change, collaboration, leadership and conflict resolution. A self-inventory of characteristics necessary in leadership is conducted; strengths and weaknesses are analyzed. One hour each week.

NSG 389. Nursing Process in Contemporary Nursing (3) Prerequisites: Nursing 219, 250, and 250-51. Corequisite: Nursing 389-51. Focuses on utilization of the nursing process with families in all phases of the life cycle. Incorporates communication

patterns, family development and prevention. A clinical framework is developed from relevant theories and research. Nursing roles of career provider, coordinator, client teacher and advocate are explored. Responsibility and accountability for interactions with families are emphasized as the need for change within family and health care delivery systems is identified. Three hours each week.

NSG 389-51. Nursing Process in Contemporary Nursing Laboratory (3) Prerequisite: Nursing 219, 250, 250-51. Corequisite: Nursing 389. Provides the opportunity for clinical application of concepts and techniques taught in Nursing 389. The nursing process is utilized with families during all phases of the life cycle in community and acute care setting. Twelve hours clinical laboratory each week.

PROFESSIONAL PROGRAMS

MEDICAL TECHNOLOGY

Advisor: Mrs. Kendrick

UNCW students interested in Medical Technology have two programs of study from which to choose.

1. A five-year program which includes earning a Bachelor's degree with a major in either Biology or Chemistry and completion of an additional year of training at an accredited hospital.

*2. A four-year program leading to a Bachelor of Science degree with a concentration in Medical Technology. The first six semesters (90 semester hours) of this program are completed on campus with the final year (12 months) spent in training at an affiliated hospital. The affiliated hospitals are:

Bowman Gray School of Medicine/North Carolina Baptist Hospital, Winston-Salem, N.C.
Charlotte Memorial Hospital, Charlotte, N.C.
Forsyth Memorial Hospital, Winston-Salem, N.C.
Mercy Hospital, Charlotte, N.C.
New Hanover Memorial Hospital, Wilmington, N.C.
Presbyterian Hospital, Charlotte, N.C.

Upon successful completion of this four-year program, the student will receive the Bachelor of Science degree with a concentration in Medical Technology.

Completion of the first years of study at UNCW does not assure the student admission to the year of clinical training at a hospital. There is competition for the limited space available; therefore, application to the preferred hospital should be made early in the fall of the last year at UNCW. Such application is the responsibility of the student. Guidance by the faculty advisor should be sought, since entrance requirements may differ at various hospitals.

As a part of the admission process, some hospital facilities require that applicants take the Allied Health Professions Test. This test is given at specified institutions each year. See the advisor about time and place.

***Students majoring in Medical Technology must file and pay for graduation during the first semester of the junior year. This application is filed in the office of the Registrar.**

he curriculum prescribed during the first three years at UNCW includes the following:
. Basic Studies requirements—45 semester hours.
. Requirements for a concentration in Medical Technology for the BSMT degree:

BIO 108 Introduction to Medical Technology (1)
BIO 205 Introductory Biology: Plants (4)
BIO 206 Introductory Biology: Animals (4)
BIO 207 Introductory Biology: Cells (3)
BIO 341 Clinical Calculations (1)
BIO 345 Animal Physiology (4) *or* BIO 347 Cell Physiology (4) *or* BIO 240-241, Human Anatomy and Physiology (4-4)
BIO 371 Human Fungal Diseases (I) *or* BIO 477 Mycology (4)
BIO 425 Microbiology (4)
BIO 441 Introduction to Immunology (1)
CHM 101-102 General Chemistry (4-4)
CHM 211-212 Organic Chemistry (4-4)
MAT 111 Precalculus Mathematics (3) *or* MAT 115 Elementary Mathematical Analysis

ecommended elective courses:

BIO 235 Genetics in Human Affairs (3)
BIO 335 Genetics (4)
BIO 465 Biochemistry (3)
BIO 495 Seminar (in related areas) (1)
*CHM 235 Quantitative Analysis (4)
CHM 325 Physical Chemistry (4)
PHY 101-102 Elementary College Physics (4-4)
STT 215 Introduction to Statistics (3)
Computer Science Courses

*Very highly recommended

hoice of elective course should be made jointly by the student and the Medical Technology dvisor.

During the clinical training year at the affiliated hospital, the final 34 semester hours are arned from the courses listed below. Credit for these courses may not be counted toward ny other degree at The University of North Carolina at Wilmington.

Medical Technology Course Descriptions

IT 401. Immunology-Serology (2) A study of the innate and adaptive immune response mechanisms in the body and the laboratory methods used to evaluate these responses. Special emphasis on serological techniques.

T 405. Hematology (8) A study of the formation, morphology, and functions of human blood cells, primary and secondary hematological diseases and clinical laboratory tests for diagnosing them; hemostasis and the evaluation of clotting disorders.

T 407. Immunohematology (4) A study of the clinical transfusion service, including collection and handling of donor blood and its components, blood typing, compatibility testing between donor and recipient blood and between maternal and fetal blood, and identification of factors responsible for incompatibilities.

MT 412. Clinical Microbology (8) A study of the medically important bacteria, fungi, viruses, parasites, and associated infectious diseases; special emphasis on the study of appropriate clinical specimens for isolation and identification of microorganisms involved in the infectious process and on testing these isolates for antibiotic susceptibility.

MT 414. Clinical Microscopy (2) Chemical and microscopic study of urine and other body fluids in health and disease, microscopic analysis of urinary sediment, and study of renal physiology.

MT 420. Clinical Chemistry (8-10) Study of the biochemical analyses of blood and other body fluids to evaluate the enzymes, hormones, electrolytes, drugs, and other important chemicals in the body; use and maintenance of sophisticated instrumentation and quality control.

MT 490. Special Topics in the Clinical Laboratory Sciences (1-2)

NURSING

Advisors: Ms. Majette, Ms. Payne, Ms. Stone, Dr. Gray (Registered Nurses only)

The University provides a four-year program leading to a Bachelor of Science degree with a concentration in nursing. Upon successful completion of the program and the recommendation of the faculty, graduates are eligible to write the licensure examination for registered nurses.

For further information on the Nursing program, refer to the section of this catalog which describes School of Nursing programs, requirements, and course offerings.

THE TEACHER EDUCATION PROGRAM

The Teacher Education Program at The University of North Carolina at Wilmington stresses a broad education base, a sound subject matter preparation, and an appropriate emphasis on professional education to meet state certification requirements and to give the prospective teacher confidence.

All students who expect to follow the Teacher Education Program must be formally admitted into the program according to policy established by the University Council on Teacher Education. To be eligible for admission, students must have completed four semesters or two academic years of full time college study or completion of required general studies program with a minimum overall grade point average of 2.5 on a 4.0 scale, have completed the University basic skills requirements in English and Mathematics and a Natural Science laboratory course with a grade of at least "C" in each course, have completed EDN 200, Teacher, School and Society, with a grade of "C" or better, and have passing scores on the teacher education entry tests specified and mandated by the Board of Education of the State of North Carolina.

The University provides degree certification programs for elementary, middle grades, secondary, and special education teachers. For further information, refer to the section of this catalog which describes School of Education programs, requirements, and course offerings.

PRE-PROFESSIONAL PROGRAMS

PRE-AGRICULTURE AND PRE-FORESTRY

Pre-Agriculture Advisor: Dr. Merritt
Pre-Forestry Advisor: Dr. Sieren

Pre-professional programs in forestry and agriculture are arranged which enable students to transfer to schools offering professional training in the two fields. The programs are designed to meet the requirements and recommendations of the professional schools and students should plan their programs in consultation with the pre-agriculture or pre-forestry advisor.

PRE-ENGINEERING

Advisors: In General College Advising Center

The University offers courses in pre-engineering for students who may transfer to a specialized engineering school after one or two years.

General Requirements: Mathematics 161 (students with insufficient background may begin with MAT 115 or even MAT 111), 162, 261, 361; Chemistry 101, 102; Computer Science 111 or 121 (see advisor); Engineering 111; Physics 201, 202; English 101, 102; Economics 221; plus Humanities and Social & Behavioral Sciences courses designed to meet graduation requirements at the university to which one is intending to transfer (see advisor).

Physical Education 101 (PED 102 is not required for graduation; however, four semesters of Physical Education are required to graduate from N.C. State University).

Specific Requirements:
Chemical Engineering: Chemistry 311, 312
Civil Engineering: Geology 101; Engineering 211, 212; Civil Engineering students should also consider Geography 320
Electrical Engineering: See advisor.

PRE-LAW

Advisor: Dr. James Dixon

Students who plan to prepare for law school may select a major in any discipline that fulfills the requirements for a baccalaureate degree at UNCW. In developing a Pre-Law program, the student should be aware of the recommendation of the Association of American Law Schools, which describes the basic skills and insights it believes fundamental to the later attainment of legal competence. These are (a) comprehension and expression in words; (b) critical understanding of human institutions and values with which the law deals; and (c) creative power in thinking. In order to develop these capacities, the association recommends a pre-legal education of "the broadest scope." To accomplish these goals The University of North Carolina at Wilmington offers a wide range of Pre-Law courses. Although Political Science and Business are frequently selected by Pre-Law students as their major, Economics, History, Sociology and others are sometimes selected. Regardless of the area of concentration, the Pre-Law student should be zealous in the selection of electives that will facilitate critical understanding of economic, political and social institutions. Since a lawyer must be able to communicate effectively, the Pre-Law student is well-advised to lay special emphasis on communicative skills. Also a knowledge of elementary accounting is highly recommended.

Finally, the Pre-Law student should remember that the quality of undergraduate instruction is more important than the subject matter area. The Association of American Law Schools recommends the selection of courses which require the greatest preparation and intellectual discipline. "The best trained applicant for law school," states the Association, "is the student who has studied under teachers who have inspired, challenged, and pressed him."

All candidates for law school should apply in time to insure that their completed file is available by January 1 of the year they plan to enter. This means that they should register for either the June or October administration of the Law School Admissions Test and for the Law School Data Assembly Service. The LSAT and the LSDAS are explained fully in the Law School Admission Bulletin which is available in the Department of Political Science. Additional information and advice may be secured from the Pre-Law advisor in the Department of Political Science.

PRE-MEDICINE, PRE-DENTISTRY, AND PRE-OPTOMETRY

Advisor: Dr. Ned H. Martin

The University of North Carolina at Wilmington offers an excellent opportunity to students desiring preprofessional training in dentistry, medicine, or optometry. Although specific requirements may vary among various schools, all emphasize core courses in biology, chemistry, mathematics, and physics. These courses could be incorporated in almost any major, and students should give consideration to a major which they find interesting and in which they feel confident. Students majoring in the natural sciences should have a broad background in the humanities and social sciences areas. Most medical and dental schools recommend that students receive a bachelor's degree (B.A. or B.S.) before admission. While planning their curriculum, students should keep in mind the graduation requirements which include a total of 124 credit hours, the basic studies requirements, and the requirements of their chosen area of concentration. Pre-medicine, pre-dentistry, and pre-optometry are not majors; however, there are B.A. degree programs in Biological Sciences, in Chemistry, and in Physics with an emphasis in the pre-medical sciences.

In addition to the required core courses, almost all medical schools require taking the Medical College Admission Test (MCAT), dental schools require taking the Dental Admission Test (DAT), and optometry schools require taking the Optometry Admission Test (OAT) prior to consideration for admission. Scores on these tests constitute an important part of the admission criteria. Students usually take these tests during their junior or early senior year.

High academic achievements should be coupled with extracurricular activities as most professional schools prefer students who are well-rounded.

Required Courses

The following courses fulfill the *minimum* requirements of a large number of medical and dental schools.

General Chemistry (CHM 101-102 with labs)
Organic Chemistry (CHM 211-212 with labs)
Quantitative Analysis (CHM 235 with lab)
Animal Biology (BIO 206)
Cell Biology (BIO 207)
Comparative Vertebrate Anatomy (BIO 315)
Physics (PHY 101-102 or 201-202)
Precalculus Mathematics (MAT 111-112 or 115)

Additional Recommended Courses

Calculus (MAT 161-162)
Biochemistry (BIO 465 or CHM 465)
Medicinal Chemistry (CHM 417)
Animal Physiology (BIO 345)
Advanced Organic Chemistry (CHM 415)
Vertebrate Embryology (BIO 316)
Genetics (BIO 335 or 235)
Physical Chemistry (CHM 325 or 321-322)
Cell Physiology (BIO 347)
Microbiology (BIO 425)

The pre-medical advisor helps students with curricular planning, academic progress, preparation for admission tests, and with application for admission to professional schools. The Premedical Sciences Advisory Committee composes a consensus evaluation of each applicant to medical science profession schools. Students interested in a career in the health sciences should consult the advisor for additional information as early as possible in their academic programs.

PRE-PHARMACY

Advisor: Dr. Sayed

Students interested in careers in Pharmacy should consult with the Pre-Pharmacy advisor before arranging their academic schedules. Basic coursework in Biology, Chemistry, Physics, and Mathematics is required, as well as additional studies in the Social Sciences and Humanities in the two-year Pre-Pharmacy program. Students should arrange through their advisor to take the Pharmacy College Admission Test (PCAT) in November of their second year. Applications to pharmacy schools should be made in the fall or winter of the second year.

PRE-PHYSICAL THERAPY

Advisor: Dr. Stokes

The University offers courses in pre-physical therapy for students who wish to apply to a specialized physical therapy program. The program of study outlined below is designed to meet minimum requirements at UNC-Chapel Hill.

General Requirements: Foreign Language through 201; English 101 and 102; Mathematics 115 and Statistics 215 or Mathematics 161; Chemistry 101 and 102 with labs; Biology 105 or 206 and 240 with labs; Physics 101 with lab; two courses in Social Science; one course in Philosophy; one course in Literature; one course in Fine Arts; two courses in History; Psychology 105; three elective courses; two Physical Education activities courses.

All of the above courses must be completed by the end of the spring semester prior to fall entrance, except one elective which may be taken during the first session of summer school. For application requirements to University of North Carolina at Chapel Hill or to East Carolina University, see advisor.

PRE-VETERINARY MEDICINE

Advisor: Dr. Ballard

The student interested in applying to a school of veterinary medicine may complete basic requirements for admission at The University of North Carolina at Wilmington. Spec-

ialized courses not offered at this institution must be taken elsewhere. The only school of veterinary medicine in North Carolina is located at North Carolina State University in Raleigh.

Students planning to pursue a career in veterinary medicine should consult with the advisor to plan the program of study.

SPECIAL PROGRAMS

MARINE SCIENCES

Marine Science activity at The University of North Carolina at Wilmington consists of instructional and research programs on the University's main campus as well as specialized research activities associated with its Institute for Marine Biomedical Research at Wrightsville Beach.

The programs in Marine Sciences on the University's main campus consist of a Marine Biology curriculum leading to the B.S. degree, a Marine Biology curriculum leading to the M.S. degree, and a Faculty Marine Science Research Program.

MARINE BIOLOGY CURRICULUM

The UNCW Marine Biology curriculum is a unique baccalaureate program in the University system. It includes a strong foundation of Biology with an emphasis in Marine Biology at the junior and senior levels. Full use is made of the natural laboratory provided by the adjacent Atlantic Ocean through extensive field work in many Marine Biology courses. Approved collateral requirements include marine-oriented courses in Mathematics, Physics, Chemistry and the Earth Sciences. The curriculum is flexible enough to meet the individual needs of the student enabling preparation for graduate studies or for teaching and research careers available to one with the baccalaureate degree. Requirements for the B.S. degree in Marine Biology are listed under Biological Sciences in the Degree Program Requirements section of this catalogue.

MARINE BIOLOGY GRADUATE PROGRAM

The graduate program leading to the Master of Science degree in Marine Biology includes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each of these tracks is designed to provide the necessary latitude to allow students to develop programs of study appropriate to their needs. Further information is given in the Graduate Studies section.

MARINE SCIENCE RESEARCH PROGRAM

The Marine Science Research Program has many active participants with research interests covering areas of Marine Biology, Physical and Chemical Oceanography, Marine Geology and Marine Biogeography. There are two categories of participants in the program: those who hold research positions and those who hold regular teaching positions but who are also engaged in Marine Science research. All participants are involved in the Marine Science instructional program.

INSTITUTE FOR MARINE BIOMEDICAL RESEARCH

The Institute for Marine Biomedical Research constitutes a major component of the overall Marine Science development effort at UNCW and has the dual mission of conducting research programs of the highest quality and utilizing these programs as an instrument in the education of students.

The Institute's scientific program focuses on three related areas. Experimental Biology addresses itself to broad problems of adaptation and acclimatization of animal life at all levels of development to the environmental stresses characteristic of the marine environment. Biomedical studies are concerned with ion transport and calcification in marine organisms and other vertebrates and regulatory processes such as hormonal and temperature regulation in marine invertebrates. The Experimental Oceanology program covers a broad range of efforts related to the ocean environment, using the ocean as a laboratory in which the methods of experimental science can be applied to the solution of problems related to management, conservation, and development of marine life.

Supporting the Institute's research program are a series of specialized facilities, including the complex of deep-sea simulators capable of simulating ocean depths of 30,000 feet, a biochemistry laboratory, histology laboratory, a photographic laboratory, and electronic and machine shops.

ENVIRONMENTAL STUDIES CURRICULUM

The Environmental Studies curriculum emphasizes the importance of multidisciplinary approaches in the study of environmental problems, particularly those dealing with the marine environment. The curriculum exposes students to a broad range of analytical procedures in the natural and social sciences, while allowing them to develop special capabilities within their primary area of interest.

The curriculum is divided into two parts: a multidisciplinary core consisting of course work in the natural and social sciences, including an environmental impact seminar, and an area of specialization consisting of course work within approved disciplines. Those who wish to emphasize Marine Science may do so by electing an approved sequence of courses in Marine Science. Other available concentrations include: Biology, Chemistry, Earth Sciences, Economics, Mathematics, Physics, Political Science, Psychology, Sociology and Anthropology. Requirements for the B.A. degree in Environmental Studies are listed in the Degree Program Requirements section of this catalogue.

FIELD EXPERIENCE IN BIOLOGY

The Department of Biological Sciences offers a summer field experience in various biological disciplines at selected areas within and outside the continental United States. Participating students may conduct individual or group research, with faculty guidance, on both marine and terrestrial organisms. Research already has been conducted in such places as the Florida Keys, the Bahamas, and parts of Central and South America.

ARMY ROTC

The Army Reserve Officers' Training Corps at The University of North Carolina at Wilmington provides men and women, who meet the physical and mental requirements, the opportunity to become officers in the U.S. Army on active duty or in the Army National Guard or U.S. Army Reserve.

Current undergraduate, graduate, and transfer students are eligible. All college disciplines are accepted. Students may enter the program at almost any time during their study at UNCW. The four programs offered include the Scholarship Program, the Four-Year and Two-Year Programs, and the Simultaneous Membership Program with the Army National Guard or Reserves.

PROGRAM IN SCIENCE AND CULTURE

The Program in Science and Culture, a research and teaching unit, conducts research in the general area of the relation between creativity in the natural sciences and the social, political, and philosophical characteristics of the culture in which the scientific work is being

conducted. The model upon which current efforts are concentrated is the emergence of experimental science and the beginnings of the scientific revolution in Western Europe and a comparison with those of other civilizations, notably the Islamic and the Chinese. This program utilizes its research as the basis of its teaching functions by incorporating students as research participants.

SUMMER SESSIONS

The Summer Sessions constitute an integral part of the University's academic year. Students may take advantage of several unique programs related to the marine environment and other interesting subject areas. A variety of courses is offered for students who wish to accelerate their progress toward the baccalaureate degree, to supplement the academic load carried during the regular terms, or to removed deficiencies. During the summer sessions, undergraduate students from other colleges or universities may be admitted as visitors by using the "Summer Visitor" application. In addition, public school teachers may wish to renew or change fields of certification or pursue a program of graduate studies in the School of Education.

Further information concerning the Summer Sessions may be obtained by contacting the Director of Summer School.

OFFICE OF SPECIAL PROGRAMS

Through the Office of Special Programs, the University serves the surrounding community by offering a variety of educational and service-oriented activities which can be academic or non-academic in nature. These include continuing education and university extension programs.

CONTINUING EDUCATION

The University responds to the continuing education needs of the community by developing programs cooperatively with business, industry, educational institutions, service organizations, social service agencies, government agencies, civic groups, and individuals. Participation in these non-academic programs is based on the needs of an individual or group and the appropriateness of the activity.

PROGRAMS AND SERVICES FOR BUSINESS AND INDUSTRY

The Office of Special Programs offers a variety of short courses, conferences and workshops specifically designed for business and industry. University faculty and staff or individuals from other universities or organizations conduct programs in communications, management, planning, supervision, small business administration, or other similar topics. Annually, faculty from the Cameron School of Business Administration conduct a series of professional development courses in business. Activities are offered to the general public or can be custom designed for a specific business or industry.

PROGRAMS AND SERVICES TO PUBLIC ORGANIZATIONS

Because the University is vitally interested in assisting public organizations (municipal, county, state, and federal) with their training and educational programs, the Office of Special Programs offers a variety of continuing education activities, including credit courses, non-credit short courses, workshops, conferences, and seminars.

PROGRAMS AND SERVICES TO SCHOOL SYSTEMS

The University also assists school systems with programs for the professional improvement of teachers. Courses can be designed to meet certification and renewal requirements and to provide general training for teachers and administrators. Courses can also be designed to meet the needs of a specific school or system.

PROGRAMS AND SERVICES TO THE GENERAL PUBLIC

A full range of community interest programs designed to raise the level of awareness of issues affecting daily life and to contribute to personal enrichment is offered by the Office of Special Programs. These activities include speakers, discussion groups, short courses, workshops and conferences with topics ranging from local problems to international affairs. Activities are non-credit in nature, focusing on topics of interest to the general public.

UNIVERSITY EXTENSION PROGRAM

In an effort to reach beyond the campus boundaries the University offers, through the Office of Special Programs, a number of freshmen and sophomore level courses at Bladen Community College in Dublin, and Sampson Community College in Clinton, North Carolina.

The technical colleges are responsible for recruiting and enrolling students who must be high school graduates or the equivalent. Students enrolled in the program who desire to become degree candidates on the University campus must meet regular admission requirements for freshmen or transfer students.

An additional dimension of the Extension Program includes undergraduate and graduate instruction in the field of education at off-campus sites. Utilizing faculty from the School of Education, these courses are offered to meet the staff development and/or graduate education requirements of local teachers.

All requests for transcripts for University extension courses should be forwarded to the Registrar of The University of North Carolina at Wilmington.

Further information concerning the Extension Program may be obtained by contacting the Director of Special Programs.

GRADUATE STUDIES

GRADUATE STUDIES

The University of North Carolina at Wilmington offers programs of study leading to the Master of Business Administration degree, the Master of Education degree, and the Master of Science degree in Geology and Marine Biology.

The Master of Business Administration program is an advanced degree program designed to enhance the development of the professional manager. The program consists of three parts: a common body of knowledge essential for managers of business firms and other organizations; a series of courses in various functional areas of business that enable the development of expertise in general management; and electives consistent with individual career objectives.

The Master of Education degree is granted in Elementary Education, in Reading Education, in Special Education, and in Educational Administration and Supervision. The program in Elementary Education offers specialties in (a) Early Childhood Education and (b) Intermediate Education, and (c) Middle Grades Education. The Program in Reading Education prepares Reading Education Specialists (K-12). The program in Special Education is cross categorical (K-12). The program in Educational Administration and Supervision offers specialties in (a) Administration leading to certification for the professional role of principal, and (b) Supervision leading to certification for the professional role of curriculum-instruction specialist.

The Master of Science degree program in Geology includes three areas of emphasis: Coastal Processes, Coastal Plains Geology and Marine Geology. Each area of emphasis is designed to develop professional geologists capable of conducting research in sedimentary geology through broadly-based study of modern geological processes and their ancient analogs.

The Master of Science degree program in Marine Biology includes three areas of specialization: Marine Biology, Biological Oceanography, and Coastal Biology. Each track is designed to provide the necessary latitude to allow the student, in consultation with a faculty committee, to develop an appropriate program of study.

These programs provide capable students an opportunity to pursue advanced study, training, and research designed to enhance their academic and professional development.

ADMISSIONS: MASTER'S DEGREE PROGRAM

General Admission Requirements

For admission to a graduate degree program at The University of North Carolina at Wilmington, the applicant must (1) hold a bachelor's degree from an accredited college or university in this country or its equivalent in a foreign institution based on a four-year program; (2) have a strong overall academic record with a B average or better in the basic courses prerequisite to the area of proposed graduate study; and (3) present satisfactory scores on the specified examination. (Test scores more than five years old at the time of application will not be considered.) In addition, students who are taking or have taken graduate work elsewhere must be in good standing at that institution to be eligible to take graduate work at UNCW.

Applications for admission to a graduate degree program should be filed in the Graduate Office at least sixty (60) days in advance of the term in which admission is sought. If admitted applicants do not register for the term specified in this application, their admission will be subject to review at a later date. In some cases, students who are not seeking a graduate degree may be permitted to take graduate courses as a Special Graduate enrollee. Such permission to take graduate courses as a Special Graduate Student does not constitute admission to a graduate degree program. A student who leaves the University and does not register for at least one semester must apply for readmission to graduate studies.

Each student admitted to a graduate degree program must have a completed medical report form on file at UNCW before initial registration may be effective. **In addition, an**

immunization record for each newly admitted UNCW graduate student, regardless of status, is required by law to be on file at UNCW prior to enrollment.

Graduate students are subject to the same University policies and regulations as undergraduates unless otherwise stated.

Requirements for Admission to Master of Business Administration Program

Applicants seeking admission to the graduate program in Business Administration are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
(3) official scores on the Graduate Management Admission Test (GMAT)
(4) three recommendations including one from an employer or supervisor who can comment on the applicant's work experience and potential for successful completion of a master's program

A strong overall academic average, a total score of 1,000 or more based on the formula: 200 times the upper division grade point average (4.0 systems) plus the GMAT score, and at least one year of appropriate full-time work experience are minimum requirements for graduate admission. However, admission decisions are based upon several factors; and if other indicators of success are evident, individuals who fall below the established criterion in one of the areas may be considered for admission.

Requirements for Admission to Master of Education Programs

Applicants seeking admission to a graduate program in Education are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
(3) official scores on the Miller Analogies Test
(4) three recommendations by individuals in relevant professional fields

A score of 40 on the Miller Analogies Test and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors, and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

In addition to the general requirements, applicants to the program in Elementary Education are required to hold, or be qualified to hold, North Carolina "A" teacher certification in Early Childhood Education, Intermediate Education, or Middle Grades Education. Applicants to the program in Special Education are required to hold or be qualified to hold North Carolina Class "A" special education teacher certification in at least one area of exceptionality and are required to have taken at least one course in mental retardation, one course in learning disabilities, and one course in emotional disturbance. Applicants to the Educational Administration and Supervision and Reading programs are required to hold, or be qualified to hold North Carolina Class "A" elementary, middle grades or secondary teacher certification.

Under exceptional circumstances, individuals who do not hold the specified teaching credential may be admitted. Such exceptions may be made in cases of otherwise qualified applicants who are engaged in relevant professional roles not requiring teacher certification and who may profit professionally from the type of advanced study offered at this institution. Examples of applicants for whom exception is appropriate may include community college administrators and teachers. In such instances, the programs may be modified appropriately. Individuals admitted under such exceptions are not qualified, however, upon completion of the graduate program for the institution's recommendation for North Carolina Board of Education instructional or administrative certification.

Students who seek professional improvement but do not intend to pursue a degree may register for graduate courses through procedures established for Special Graduate Students.

Requirements for Admission to Master of Science Programs

Applicants seeking admission to a graduate program in Geology or Marine Biology are required to submit the following:

(1) an application for graduate admission
(2) official copies of transcripts of all college work (undergraduate and graduate)
*(3) official scores on the Graduate Record Examination, verbal and quantitative
(4) three recommendations by individuals in professionally relevant fields

A score of 1000 on the Graduate Record Examination (verbal and quantitative) and a grade average of B in the undergraduate major are minimum requirements for graduate admission. However, admissions decisions are based upon several factors; and where other indicators of success warrant, individuals who fall below the established criterion in one of the areas may be considered for admission.

Although interviews are most helpful to both the faculty and to the graduate applicant, they are not required.

*Students seeking admission to the program in Geology or Marine Biology are also required to take the Graduate Record Advanced Test in geology or biology, as appropriate.

Application forms and other admissions information may be obtained by writing to the Office of Graduate Studies, The University of North Carolina at Wilmington, 601 South College Road, Wilmington, North Carolina 28403-3297.

EXPENSES

The Board of Governors of The University reserves the right to change the charges for tuition, fees and the room and board rate at any time without prior notice.

Tuition and Fees (In effect at time of publication)

All charges for tuition and regular fees are due and payable on or before the day of registration. Checks and money orders should be made payable to The University of North Carolina at Wilmington.

Full Time Charges Per Semester (9 or more semester hours):

	In-State Students	Out-of-State Students
Tuition	$216.00	$1,966.00
Fees	239.50	239.50
Total	$455.50	$2,205.50

Other Fees:

Application Fee (to accompany application, nonrefundable)	$15.00
Late Registration Fee (payable after scheduled dates)	10.00
Transcript Fee (after the first)	1.00
Graduation Fee	27.00

Certain courses have additional fees which increase the semester charges shown above. These fee courses are indicated in the course schedule for each semester.

Graduate students registering for nine or more semester hours will be charged at the full-time rate as shown above. Students scheduling fewer than nine semester hours will pay tuition and fees as follows:

Semester Hours Scheduled	In-State Students	Out-of-State Students*
0-Thesis only	$128.50	$ 340.50
1-2	$ 83.50	$ 521.50
3-5	$137.50	$1,012.50
6-8	$204.00	$1,517.00

The privileges of students taking fewer than nine hours per semester will be restricted to class attendance and use of the library; however, by paying a Special Use Fee of $18.00 per semester, these students will be entitled to use all physical education facilities which are available to full-time students.

*See information on residency at the end of this section.

No degree, diploma, transcript of credit, or grades will be furnished a student until all financial obligations to the University, other than student loans, have been paid. All previously incurred expenses and accounts at the University must be paid in full prior to preregistration or registration for a new term.

On-Campus Living

Two meal plans are available for residence hall students. The rates per semester are as follows:

Room and Board:	15 meals	$1,235.00
Room and Board:	21 meals	$1,260.00

Three meal plans are available for apartment students. The rates per semester are as follows:

Apartment and Board:	10 meals	$1,335.00
Apartment and Board:	15 meals	$1,360.00
Apartment and Board:	21 meals	$1,385.00

The University reserves the right to change the on-campus living rate at any time without prior notice.

Dining facilities are available on Saturdays and Sundays on a cash basis to all resident students not on a seven-day plan. Food service is also available seven days per week on a cash basis to non-resident students.

An advance room reservation deposit of $100.00 to be applied to the room and board account must be remitted by each applicant along with the complete application for room and board.

Those interested in obtaining information should contact:
Housing Office
The University of North Carolina at Wilmington
601 S. College Rd.
Wilmington, North Carolina 28403-3297

Summer Session

Summer session tuition, fees, refund policy, and room and board rates will be announced in the Summer Session Bulletin.

Refunds — Tuition

A student who officially withdraws from the University on or before the last day of the registration (Drop/Add) period will receive a refund of the amount paid. Students withdrawing from the University after the Drop/Add period will be charged 10% of all semester charges for each week of classes that have been held that semester. This weekly charge begins with the first day of scheduled classes regardless of the actual date of enrollment.

No refunds will be made for withdrawals after the end of the ninth week of scheduled classes.

This refund policy applies to *complete* withdrawals from UNCW. If you simply reduce your course load after the Drop/Add period, you will receive NO refund reduction of fees whatsoever.

Refunds — Financial Aid

Students who receive financial aid are not given refunds on financial aid received when charges are prorated due to withdrawal.

Refunds — Housing

Housing agreements are effective for the full academic year. Agreements made subsequent to the beginning of the fall semester remain in effect until the close of the spring semester. Housing deposit and charges will not be refunded except as provided for below:

1. New Students (Incoming Freshmen and Transfers) - If a new student, after remitting the deposit and being accepted to on-campus housing, decides not to live on campus and gives notice of this decision **in writing** by June 15, 1988 in the case of application for the fall semester, or at least one month prior to the semester in the case of application for the spring semester, the deposit shall be refunded, less a $25.00 administrative charge. Requests for refund received after June 15, 1988 will be denied and the $100.00 deposit forfeited. This condition also applies to students remitting the deposit and accepted to on-campus housing after June 15, 1988.
2. Returning Students (Students currently or previously enrolled at UNCW) - The $100.00 housing deposit is **non-refundable** to returning students after being accepted to on-campus housing. (Exceptions being marriage, transferring to another institution or withdrawal from UNCW - less $25.00 administrative fee). Notification must be received in the Housing Office, **in writing,** by June 15, 1988.
3. Room rent for either semester will not be refunded once a student officially moves into a residence hall/apartment.
4. A pro rata refund of dining charges will be made to students who officially withdraw from the University.

Residence Status for Tuition Payment

The basis for determining the appropriate tuition charge rests upon whether a student is a resident or a nonresident for tuition purposes. Each student must make a statement as to the length of his or her residence in North Carolina, with assessment by the institution of that statement to be conditioned by the statement beginning on page 28 of this catalogue.

The initial classification of graduate students as in-state or out-of-state residents for tuition purposes is made by the Office of the Director of Graduate Studies. Appeals for in-state status may be made to the campus appeals body, Out-of State Tuition Appeals Committee. University regulations governing residential classification of students are set forth in detail in "A Manual to Assist the Public Higher Education Institutions of North Carolina in the Matter of Student Residence Classification for Tuition Purposes." Each enrolled student is responsible for knowing the contents of this manual. Copies of the manual are available in the undergraduate Admissions Office and in the Student Affairs Office for inspection upon request.

FINANCIAL AID FOR THE GRADUATE STUDENT

MINORITY PRESENCE GRANT PROGRAM

Under the Board of Governors general Minority Presence Grant Program, black students may be eligible for special financial assistance if they are residents of North Carolina, enrolled for at least three hours of degree-credit course work, and demonstrate financial need.

ASSISTANTSHIPS

Teaching and Research Assistantships are available on a limited basis through the Department of Biological Sciences and the Department of Earth Sciences. The admission application process determines candidates.

Graduate Assistantships are available on a limited basis through the Cameron School of Business Administration and the School of Education. For information contact the Dean of the appropriate school.

FELLOWSHIPS/SCHOLARSHIPS

The Sylvia and B. D. Schwartz Graduate Fellowship Award may be awarded to any graduate student enrolled at The University of North Carolina at Wilmington. Recipients shall be determined by the Office of Graduate Studies and will receive an amount equal to in-state tuition and fees.

The Zonta Scholarship is awarded annually to a UNC-Wilmington female student of junior or senior standing, or a female graduate student enrolled in an approved program. She should be enrolled at least half time and have an overall grade point average of 3.0, have leadership potential, be of high ethical standards, and show promise in her chosen profession.

LOANS/COLLEGE WORK STUDY PROGRAM

Students who are enrolled at least half-time in the Graduate Studies Program at UNCW may apply for the following types of financial aid:

Guaranteed Student Loan Program provides loans to graduate students who qualify on the basis of financial need. Applicants complete the regular financial aid application process in addition to completing a loan application. Students may borrow up to $7,500 per academic year for five years. Repayment begins six months after the student ceases to be enrolled at least half time. The interest rate is calculated at eight percent for the first four years of repayment but escalates to 10 percent during the fifth year of repayment. Borrowers may be given up to 10 years to repay their loans.

Supplemental loans for students provide funds to cover their college expenses in addition to those borrowed under the Guaranteed Loan program. These loans are available to **independent** graduate students who meet federal eligibility requirements, and attend school at least half time. In determining eligibility, the credit worthiness of the borrower is of primary importance. Students may borrow up to $4,000 per year for a cumulative total of $20,000. However, no student may borrow more than his cost of education minus other aid received. Repayment begins immediately with the first installment due 60 days after receipt of your money. A variable interest rate will be calculated annually based on a federal formula but cannot exceed 12 percent.

Parent Loans for graduate students may be secured by the parent to assist in covering educational costs. Parents may borrow up to $4,000 per year for a combined total of $20,000. However, a parent may not borrow any amount that would make the total amount of financial assistance that both the student and the parent receive greater than the cost of attendance at UNC-Wilmington. In determining eligibility, credit worthiness of the bor-

rower is of primary importance. A variable interest rate will be calculated annually based on a federal formula. The new rate will begin each year but cannot exceed 12 percent.

The College Work-Study Program, which is federally funded, provides part-time jobs on the UNCW campus for students who have financial need and who must earn part of their educational expenses. To be eligible for work-study, a student must be enrolled for at least half-time and must be a citizen or permanent resident of the United States. The application and financial statement must demonstrate financial need.

For additional information, contact the Financial Aid Office.

VA Educational Benefits

Veterans and dependents are urged to utilize their VA Educational Benefits while enrolled in the graduate programs at the University. The available benefits are determined by the amount of eligibility time a veteran or dependent has remaining and the delimiting date that is involved.

For further assistance, contact the Veterans Coordinator in the Student Financial Aid Office.

ACADEMIC REGULATIONS AND PROCEDURES

Registration

No minimum number of hours is required for official registration; however, specified maximum course loads must not be exceeded. Students in a graduate degree program are permitted to register for no more than 15 hours in any one semester. Course loads for students who have service appointments will be determined on an individual basis. A student enrolled in the summer may not register for, and will not receive credit for, more than six hours a term.

Course Credit

Courses Eligible for Degree Credit

For courses offered at this institution, graduate course credit may be received only for courses taken after a student has been formally admitted to graduate studies, except as described in the paragraphs below.

Final semester seniors at this institution with at least a B average in the major who need fewer than 15 hours to complete requirements for the bachelor's degree may take one or two graduate courses for the purpose of later receiving graduate credit, provided that they are not enrolled for more than a total of 15 hours. To do this the student must (1) obtain permission in advance from his or her department chairman or School dean as appropriate, and (2) present it to the Director of Graduate Studies for approval. Graduate courses taken under this provision may not be used in fulfilling baccalaureate degree requirements. Undergraduate students at other institutions who have taken graduate course work under similar arrangements may not transfer such work here.

Graduate courses taken at this institution before formal admission to graduate studies will meet course requirements for a graduate degree only if offered and approved as transfer credit, and no more than six credit hours of such courses are eligible for transfer.

Degree related extension courses offered at this institution may be applied toward a graduate degree as follows: (a) with the approval of the appropriate Dean, a non-degree student may apply for a maximum of six hours of relevant courses as transfer credits at the time of admission to a program, (b) with the prior approval of the appropriate Dean, a student who is already admitted to a degree program may apply up to six hours of relevant courses toward the residence requirement. Request for application of an additional six hours toward the residence requirement may be submitted to the Graduate Administrative Board.

Transfer of Course Credit

A maximum of six semester hours of graduate credit may be transferred from another accredited institution, or for courses taken at this institution before admission to graduate studies, in partial fulfillment of the total hours required for the master's degree. Correspondence courses will not be accepted for transfer credit. When special circumstances warrant, students may petition the Graduate Administrative Board for transfer of more than six semester hours. Each such petition must be accompanied by a statement of endorsement from the appropriate Dean.

Grades earned on transferred work must be equivalent to B or better. Transferred credit will be accepted by the Director of Graduate Studies only upon recommendation of the Dean of the School or College in which the student is enrolled. The graduate office must have an official transcript showing the satisfactory completion of courses offered for transfer credit. The courses must have been taken within the allowed time limits for the degree. Transfer of credit does not reduce minimum rresidence requirements for a master's degree.

A student in graduate studies who wishes to take one or more courses elsewhere for graduate degree credit must obtain prior approval from the appropriate Dean and Director of Graduate Studies.

Courses Approved for Undergraduate Credit Only

Courses approved for undergraduate credit only may not become a part of the graduate degree program and do not carry either course or residence credit.

A graduate student who is required to take undergraduate courses, whether as a requisite for admission or for other reasons, or who takes such courses in the field of his or her graduate major, must make grades of at least B on all such courses in order to maintain eligibility as a graduate student.

A graduate student voluntarily electing to register for undergraduate courses may make any grade above F without jeopardy to his or her graduate standing.

Adding, Dropping, Withdrawing

Courses may be added only in the official Drop/Add period, which is noted in the Calendar of Events. To add a course, the student must present to the Director of Graduate Studies a Schedule Revision Card signed by his or her advisor and the course instructor.

Every course for which a student is registered must be either completed or formally dropped; however, no course may be dropped in the last five weeks in a semester or during the last week of summer session.

To drop a course, the student must obtain a Schedule Revision Card from his or her advisor. If the advisor approves, the student must obtain the instructor's signature and indication of whether the student is passing or failing the course. The Schedule Revision Card must then be presented to the Director of Graduate Studies for his approval.

If, at the time a student drops a course, performance in that course is judged by the instructor to be passing, a grade of WP is assigned on the student's permanent record; however, if the student is judged by the instructor to be failing, a grade of F is assigned on the student's permanent record, and the student becomes ineligible for further registration.

A student may not use a Schedule Revision Card to drop his or her only course but must officially withdraw from the University. To withdraw officially from the University, a student must come to the office of the Director of Graduate Studies and complete a permit to withdraw.

Graduate Grading

Grades for graduate students enrolled in graduate courses must be reported as one of the following:

H – clear excellence
P – entirely satisfactory
L – low passing
F – fail
S – satisfactory progress on thesis
I – work incomplete
WP – withdraw passing

A student receiving grades of L on any three courses or on 12 semester hours (whichever comes first) or any grade of F is ineligible to continue in graduate studies.

When special circumstances warrant, students declared ineligible under the preceding paragraph may be reinstated upon petition by the student to the Graduate Administrative Board. Each such petition must be accompanied by a statement of endorsement or nonendorsement from the Dean of the School or College in which the student is enrolled. Any reinstatement is provisional in that an additional grade below P will again result in the student's ineligibility.

An incomplete grade may be given if the course instructor determines that exceptional circumstances warrant extending the time for the student to complete the course work. The instructor may set the maximum allowable period for completion of the course work, but in no case will extension exceed one year. If the time allowed is to be less than one year, this information should be transmitted in writing to the student, with a copy to the Director of Graduate Studies. If within 12 months a grade change request has not been submitted by the instructor, the incomplete automatically becomes an F.

Grades of H, P, L, S, F, and WP are permanent grades and can be changed only by the Director of Graduate Studies in cases of arithmetical or clerical error or as a result of protest of grade.

Procedure for Protest of Grade

Any student who protests a course grade shall first attempt to resolve the matter with the instructor involved. Failing to reach a satisfactory resolution, the student may appeal the grade in accordance with the procedures outlined below. Such appeal must be made not later than the last day of the next regular semester.

The student shall present the appeal in writing to the Dean of the College or School within which the protested grade was awarded. By conferring with the student and the instructor, the Dean will seek resolution by mutual agreement. Failing such resolution, the Dean will transmit the written appeal to the Director of Graduate Studies. The Director will convene the Grade Appeals Committee.

The Grade Appeals Committee will consist of the Director as chairman and five members of the graduate faculty appointed by the Director. If the Committee affirms the instructor's decision, the Director will notify in writing the faculty member, the student, and the appropriate Dean. If the Committee supports the student's appeal, it shall prescribe the method by which the student will be reevaluated. If the reevaluation results in a grade change, the established Course Grade Change procedure will be followed. The grade resulting from the reevaluation is final and may not be further appealed.

Residence Credit Computation

Conversion of semester hours to residence credit is on the following basis:

1. Nine or more semester hours in a given semester earn a full semester of residence.
2. Six to eight semester hours earn one-half semester of residence.
3. Three to five semester hours earn one-fourth semester of residence.
4. Credits earned in any summer session count towards residence credit on the same basis as courses taken in regular semesters.

Master's Degree Examination

Every master's candidate must pass either a written comprehensive examination covering his or her field of study, or an oral comprehensive examination covering all course work required for the degree, or both, according to the decision of his or her department or School. Neither examination may be taken until the course work is completed or until the final courses are in progress and must be scheduled in conformance with the deadline established by the Dean of the School or College in which the student is enrolled. If a thesis is required, a final oral defense of the thesis may be required in addition to the comprehensive examination, or as part of the oral examination.

A committee of at least three members of the graduate faculty (at least two of whom must be in the major program) evaluates the student's work for the master's degree, approves any thesis required, and administers any oral examination that may be given. If the student has a minor field of study, at least one member of the student's committee must represent the program of the minor.

A master's candidate who fails either a comprehensive written or oral examination may not take the examination a second time until at least three months have elapsed. No student may take an examination a third time without approval of the Graduate Administrative Board. A student passes an examination only on approval by at least two-thirds of the members of the examining committee. The vote of the examining committee is considered to be final.

Registration for Thesis

Every student required to write a master's thesis must register for a minimum of three hours of thesis credit. A maximum of six credit hours for the thesis may be used toward course requirements for the master's degree. During each term that a student is working on a thesis, he or she should register for as many hours as are academically appropriate, except that, if the required hours of thesis credit have been taken, the student may register for zero credit hours so long as this is the only course for which he or she is registered.

Any student engaged in thesis research and/or writing that involves the use of University faculty or facilities must be registered during the semester or summer session in which he or she is using faculty time or facilities, whether the student is in residence or not. This registration may be for zero credit hours if the student had registered previously for the required number of semester hours of thesis credit. Provided that no use of University faculty and/or facilities is required, a student need not be registered in the semester in which the degree is to be awarded.

Foreign Language Requirement

Foreign language requirements differ from one graduate degree program to another. At an early stage, a graduate student should consult his or her graduate program advisor concerning what foreign language, if any, will be required. The requirement for a student in a given program must be one of the options approved for that program by the Graduate Administrative Board.

Each department or curriculum shall determine when a graduate student must fulfill a foreign language requirement, provided that such requirement be satisfied before a student is admitted to candidacy. At the time a student requests admission to candidacy, his or her Dean will be asked to certify on the application of candidacy that such requirement has been met.

Application for Admission to Candidacy and for the Degree

A student in a master's degree program applies for admission to candidacy at the time of application for the degree. To be eligible for graduation each student must apply for a specific graduation on or before the deadline shown in the Calendar of Events.

If a student has already applied for candidacy and for the degree but fails to meet a deadline for a particular graduation, he or she must reapply for the degree, specifying a new graduation date.

Degree Time Limits

A graduate student has five calendar years from the date of first registration in the graduate program to complete the master's degree. Courses transferred from other graduate schools for application toward degree requirements must have been taken within the specified time limits for that degree.

When extenuating circumstances warrant, an extension of the degree time limit may be granted a student upon his or her petition to the Director of Graduate Studies. At the same

time such a petition is filed, the student should request the Dean of the School or College in which he or she is enrolled to forward to the Graduate Administrative Board a recommendation regarding the extension.

MASTER OF BUSINESS ADMINISTRATION

The University of North Carolina at Wilmington offers a program of study leading to a Master of Business Administration degree for any qualified holder of a bachelor's degree from an accredited college or university regardless of undergraduate field of study. The program's objective is the development of the broadly educated professional manager.

Degree Requirements

1. Fifty-four semester credit hours of approved graduate credit must be satisfactorily completed for the degree. This number of credit hours may be reduced for students who qualify for and are granted certain course waivers. Petitions for waiver are submitted to the Dean of the Cameron School of Business Administration upon acceptance for admission into the program. Despite the number of waivers granted, a minimum of 42 semester hours of graduate study must be completed. Up to six hours of graduate study may be accepted as transfer from an accredited college or university. However, the last 36 hours of graduate study must be completed at The University of North Carolina at Wilmington.
2. The student must satisfy a minimal mathematics requirement in calculus. This requirement may be satisfied by completing MAT 151, its equivalent, or by passing the Advanced Placement Test (AB) in calculus.
3. The student must successfully complete a qualifying examination consisting of an oral comprehensive examination.
4. Each student must complete the approved course of study within five years of the date of first registration for graduate study.

Course Requirements for the Master of Business Administration Degree

Students with undergraduate or graduate work in business administration may have the program of study reduced through waivers for certain courses. Students with no prior work in business administration will be required to take the following program.

A. Core Requirements (24 semester hours) The following courses comprise the core of knowledge essential to a basic understanding of modern business and managerial practice. These courses must be completed by each student unless evidence of substantial academic work in such courses at the undergraduate or graduate level is presented. Requirements may be waived on a course-by-course basis by the MBA Advisory Committee subject to approval of the Dean of the Cameron School of Business Administration.

ACG 501	Financial Accounting (3)
ECN 520	Economic Analysis I (3)
PDS 513	Quantitative Methods (3)
PDS 518	Management Information Systems (3)
BLA 560	Legal Environment and Business Regulation (3)
MGT 550	Organization Theory and Behavior (3)
FIN 535	Managerial Finance (3)
MKT 540	Marketing Management (3)

B. Professional Competence and Integrative Applications (24 semester hours) In addition to the Core Requirements, the following courses develop depth and breadth of knowledge and provide analytical skills for practical application.

ACG 502	Managerial Accounting (3)
ECN 521	Economic Analysis II (3)
MGT 555	Practice of Management (3)
PDS 517	Production/Operations Management (3)
MGT 565	Current Issues in Business (1-1-1)
MGT 595	Corporate Policy and Strategy (3)
FIN 536	Financial Policy (3)
MKT 546	Strategic Marketing (3)

C. Electives (6 semester hours)
Candidates will strengthen their knowledge and sharpen their skills in particular areas by taking at least two courses from the elective areas: Accountancy, Economics, Management, Marketing, Finance, Production and Decision Sciences.

GRADUATE PROGRAM IN BUSINESS ADMINISTRATION

Course Descriptions

ACCOUNTANCY

ACG 501. Financial Accounting (3) An intensive course in accounting principles with special emphasis on the concepts underlying income determination, preparation and interpretation of financial statements and the managerial uses of accounting information. Topics include transaction analysis, asset valuation and expense recognition, capital structure and tools of financial analysis.

ACG 502. Managerial Accounting (3) Prerequisite: ACG 501. Interpretation and use of accounting information in the planning, coordination and controlling of business activities. Topics include cost behavior, manufacturing and distribution cost-volume-profit relationships; effects of taxation and price level changes on business decisions; budgeting and responsibility accounting. Case studies emphasized.

ACG 503. Advanced Managerial Accounting (3) Prerequisite: ACG 502. An in-depth study of cost concepts appropriate for decision-making and of the budgetary procedures used in planning and control. Emphasis is placed on relating recent advances in the quantitative and behavioral sciences to the role of the contemporary managerial accountant. Case analysis is emphasized.

ACG 506. Current Issues in Financial Accounting (3) Prerequisite: ACG 501. Advanced study of the principles and theory underlying the preparation of financial statements. Consideration is given to the problems related to pension plans, long-term leasing arrangements, refunding of bonds outstanding, allocation of income taxes, changing price levels, and other controversial issues. Utilizes text, authoritative statements, and articles from the current literature.

ACG 508. Taxation and Business Decisions (3) Prerequisite: ACG 502. The accounting and managerial effects of taxation upon decisions, policies, and procedures in the planning, organization, and operation of a business enterprise. Areas covered include the taxing process; taxation of individuals, corporations and fiduciaries; investment incentives; capital gains and losses; tax shelters; and tax planning. Problems and case analysis are used.

ACG 565. Current Issues in Business (1-1-1) (See MGT 565.)

ACG 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

BUSINESS LAW

BLA 560. Legal Environment and Business Resgulation (3) A study of the management process and how it is influenced by the constitutional, legislative, judicial, regulatory, administrative, and social forces exerted on the business and social environment.

BLA 565. Current Issues in Business (1-1-1) (See MGT 565.)

BLA 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MANAGEMENT

MGT 550. Organization Theory and Behavior (3) Study of historical, theoretical and practical foundations for understanding organizational structure, behavior and performance. Emphasis on problem solving issues and applications in design, leadership, motivation and interpersonal communciations.

MGT 555. Practice of Management (3) Prerequisite: BLA 560 and MGT 550. Major problems and decision areas confronting middle and upper-level managers. Topics include long-range planning, management by objectives, project management, leadership style, and performance appraisal. Case analysis is used to foster application of current managerial techniques to the analysis, solution, and prevention of organizational problems.

MGT 556. Personnel and Labor Relations (3) Prerequisite: MGT 550. A study of manpower planning, training and development, job analysis, employee evaluation, labor legislation, and the collective bargaining process. This course is designed to foster a managerial understanding of the management of human resources rather than a technical orientation.

MGT 558. Organizational Behavior (3) Prerequisite: MGT 550. An examination of the persistent human problems in organizations including motivation, resistance to change, interpersonal and intergroup conflict, managing superior/subordinate relations. This course incorporates ideas from the behavioral sciences to provide a foundation for identifying and solving problems in the human side of an organization's operations. Case studies are emphasized.

MGT 565. Current Issues in Business (1-1-1) Current and emerging issues which affect and are affected by business. Topics focus on three major categories: (1) International Business; (2) Communications and Technology; and (3) Business Trends and Developments. At least three (3) hours are required and each candidate must include at least one (1) hour in each of the above categories.

MGT 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MGT 595. Corporate Policy and Strategy (3) Prerequisite: To be taken in the final year of the candidate's program of study. An integrative course focusing on factors considered by top-level executives in formulating both short-term and long-term corporate strategy. Particular attention is directed toward analysis of business trends, development of corporate strengths, and formulation of policies and plans. Involves extensive use of case analysis.

ECONOMICS

ECN 520. Economic Analysis I (3) Prerequisite: The mathematics of calculus. Economic analysis of demand, cost, resource allocation, and decision making in alternative market structures. The impact of fiscal and monetary policy on the decision making process is also examined and analyzed.

ECN 521. Economic Analysis II (3) Prerequisite: ECN 520 and PDS 513. An examination of the economic environment in which businesses make decisions. Topics include monetary and fiscal policy as they affect the availability and cost of funds and the effect of government regulation and tax policy on firm investment decisions. Particular attention is paid to the factors affecting current and future inflation, national output, and to business decision making in an integrated world-wide economy.

ECN 526. International Trade and Finance (3) Prerequisite: ECN 520 and FIN 535. A study of the principles underlying world trade, exchange rate adjustments, balance of payments analysis, international financial markets, direct foreign investment, the international monetary system and the new international economic order. Discusses U.S. commercial policy, transnational corporations, international joint ventures, economic integration, preferential treatment and world-wide trading practices.

ECN 565. Current Issues in Business (1-1-1) (See MGT 565.)

ECN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

FINANCE

FIN 535. Managerial Finance (3) Prerequisite: ACG 501 and ECN 520. Financial decision-making in the modern business organization. Topics include the acquisition and use of funds, capital budgeting, cost of capital, capital asset pricing, portfolio analysis and financial statement analysis. Case studies emphasized.

FIN 536. Financial Policy (3) Prerequisite: FIN 535. Conceptual foundations for a theory of financial management, the structure of major areas of financial management and the theoretical content and validity of formalized techniques for improving decision making in the areas of capital budgeting, capital structure, cost of capital, dividend policy and mergers. Case studies are used to supplement the conceptual foundations. Emphasis on the policy decisions and how they affect the valuation of the firm.

FIN 537. Financial Institutions and Markets (3) Prerequisite: ECN 520 and FIN 535. Financial institutions as suppliers of funds to the money and capital markets. Comparative financial policies and portfolio considerations of institutions in the context of their changing market environments. The impact of the economic and regulatory climate on portfolio adjustments are also examined. Cases used extensively.

FIN 538. Investments and Portfolio Analysis (3) Prerequisite: FIN 535. Analysis of financial assets as appropriate investment alternatives. Analysis and evaluation of securities and portfolio management. Securities market information and theories of security selection are examined.

FIN 565. Current Issues in Business (1-1-1) (See MGT 565.)

FIN 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MARKETING

MKT 540. Marketing Management (3) An examination of the major factors to be considered in the analysis, development, and control of marketing programs. Particular attention is directed to decisions concerning product service offering, price strategy, promotional methods, and the channels of distribution. Emphasis is placed on the role that marketing plays in the overall operation of the firm.

MKT 546. Strategic Marketing (3) Prerequisite: MKT 540. Major factors considered are setting marketing objectives, identifying market opportunities, selecting target markets, developing new products, formulating integrated marketing strategies, and solving marketing problems. Case analysis is used extensively to foster the application of marketing models and techniques to improve organizational performance.

MKT 548. Promotional Management (3) Prerequisite: MKT 540. Theories and practices of advertising, sales management, and sales promotion as they relate to the total marketing effort. Attention is directed to sales forecasting, media analysis, and the criteria for evaluating the results of the integrated marketing program. Case study is emphasized.

MKT 549. Marketing Research and Analysis (3) Prerequisite: PDS 513 and MKT 540. An examination of methods of gathering, processing, and analyzing information from the marketplace. Topics covered include problem identification, research design, primary and secondary sources of data, methods of data collection, scaling methods, and sampling techniques. Particular attention is directed to data generation methods and improving marketing decision-making.

MKT 565. Current Issues in Business (1-1-1) (See MGT 565.)

MKT 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

PRODUCTION AND DECISION SCIENCES

PDS 513. Quantitative Methods (3) Prerequisite: Completion of mathematics through calculus. Techniques for the analysis of business data. Topics include descriptive and inferential statistical methods, probability theory, and linear programming.

PDS 514. Advanced Quantitative Methods (3) Prerequisite: PDS 513. Quantitative techniques for the solution of business problems. Topics include mathematical programming, simulation, queuing theory, network theory, and game theory. Emphasizes the mathematical formulation and solution of problems using a computer.

PDS 517. Production/Operations Management (3) Prerequisite: PDS 513 and MGT 550. Techniques to aid the operations manager in making key decisions during the

initial, online, and control stages of production. Topics include product and process design; facility size, location and layout; demand forecasting; production and work force planning; quality control; and facilities maintenance. Formulation of problems for solution by the computer is an integral part of the course.

PDS 518. Management Information Systems (3) A study of the process of analyzing, designing, and implementing computer based systems which have information as their product. Minicomputer and microcomputer projects provide opportunities for comparing concepts with actual systems. An introduction to the BASIC programming language and orientation on the VAX minicomputer system are integral parts of the course.

PDS 519. Advanced Business Statistics (3) Prerequisite: PDS 513. Advanced statistical applications used to support the business decision making process. Topics include multiple linear regression, nonlinear regression, time series analysis, experimental design, decision theory, and non-parametric statistics.

PDS 565. Current Issues in Business (1-1-1) (See MGT 565.)

PDS 591. Directed Individual Study (1-3) Prerequisite: Consent of the MBA Coordinator.

MASTER OF EDUCATION

The University of North Carolina at Wilmington offers four master's degree programs in professional education: (1) a Master of Education program in Elementary Education, (2) a Master of Education program in Reading Education, (3) a Master of Education program in Special Education, and (4) a Master of Education program in Educational Administration and Supervision with tracks in Educational Administration and Supervision. Program requirements are outlined below.

Elementary Education

The program leading to the Master of Education in Elementary Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Early Childhood Education (K-4), or Intermediate Education (4-6). Within the program, specialties are offered in Early Childhood Education or Intermediate Education. The 36-semester-hour program is comprised of 15 semester hours of conceptual and technical studies common to both specialties, 15 semester hours in the area of specialization, and six semester hours of electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Elementary Core
   - EDN 500 Human Development and Learning (3)
   - EDN 502 The School as a Social System (3)
   - EDN 520 Instructional Development (3)
   - EDN 523 Research in Education (3)
   - EDN 530 Curriculum (3)

II. Early Childhood Education Track

EDN 501 Language Development (3)
EDN 531 Study of Teaching in Early Childhood Education (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
EDN 542 The Teaching of Mathematics (3)
Elect *one* of the following two:
EDN 543 The Teaching of Social Studies (3) or
EDN 544 Teaching of Science in the Elementary Schools (3)

Electives Six (6) semester hours.

EDN 599, Thesis, may be selected (6 semester hours)

III. Intermediate Education Track

A. Common Requirements

*EDN 536 Teaching Reading in the Content Areas (3)
EDN 549 Middle School Education (3)

B. Concentration (Select "1" or "2" or "3" below)

1. Language Arts Concentration (Required of teachers with Class "A" Language Arts Concentration)

EDN 537 Linquistics for Teachers (3)
Six (6) semester hours elected from the following:
EDN 501 Language Development (3)
EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
EDN 538 Teaching of Writing (3)
EDN 539 Children's Literature (3)
EDN 540 Adolescent Literature (3)
EDN 547 Integrating Language Arts and Reading: Classroom Practice (3)

2. Math/Science Concentration

Select three (3) courses, two from one area—either math or science.
EDN 542 The Teaching of Mathematics (3)
EDN 544 Teaching of Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 548 Inquiry—The Method of Science (3)

3. Interdisciplinary Concentration

Select three (3) courses among the following in Elementary Instruction representing three (3) of the following content areas: Language Arts, Social Studies, Mathematics, Science.
EDN 501 Language Development (3)
EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching in Reading/Language Arts (3)
EDN 537 Linguistics for Teachers (3)
EDN 538 Teaching of Writing (3)
EDN 539 Children's Literature (3)
EDN 540 Adolescent Literature (3)
EDN 542 The Teaching of Mathematics (3)
EDN 543 The Teaching of Social Studies (3)
EDN 544 Teaching Science in the Elementary School (3)
*EDN 546 Diagnosis and Remediation in Mathematics (3)
EDN 547 Integrating Language Arts and Reading: Classroom Practice (3)
EDN 548 Inquiry—The Method of Science (3)

C. Electives, Six (6) semester hours
EDN 599 Thesis, may be selected (6 semester hours)

*Field-based activites will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, Research in Education. A comprehensive examination will be required.

Reading Education

The a program leading to the Master of Education in Reading Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification.

The 36-semester-hour program is comprised of 12 semester hours of conceptual and technical studies, 18 semester hours in the area of specialization, and six semester hours of controlled electives.

Based upon the view of the professional as decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a reading specialization with related language arts options.

I. Reading Education Core
EDN 500 Human Development and Learning (3)
EDN 523 Research in Education (3)
EDN 525 Tests, Measures and Measurement in Education (3)
EDN 530 Curriculum (3)

II. Concentration

A. Group I (3 hours)
Select one: EDN 501, Language Development (3)
EDN 537 Linguistics for Teachers (3)

B. Group 2 (15 hours)
EDN 505 The Reading Process (3)
*EDN 534 Teaching Developmental Reading (3)
*EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
*EDN 536 Teaching Reading in the Content Areas (3)
*EDN 572 Practicum in Reading (3)

C. Group 3 (6 selected hours)
EDN 538 The Teaching of Writing (3)
EDN 539 Children's Literature (3)
EDN 540 Adolescent Literature (3)
EDN 545 Black Literature and Resources for Teachers (3)
*EDN 547 Integrating Language Arts and Reading: Classroom Practice (3)
EDN 559 Adult Literacy (3)
*EDN 573 The Disabled Reader (3)
EDN 599 Thesis (6)

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed in the required course, Research in Education. A comprehensive examination will be required.

Applicants who do not hold North Carolina Class "A" teacher certification may be admitted. In such cases, the specified undergraduate courses necessary for education certification will be required in addition to the graduate courses.

*Field based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Special Education

The program leading to the Master of Education in Special Education provides advanced professional training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification in Special Education in at least one area of exceptionality. The program is cross categorical in nature with emphasis in three areas of the mildly handicapped; mental retardation, learning disabilities, and emotionally handicapped. The 36-semester-hour program is comprised of 15 semester hours of conceptual and technical studies, 15 semester hours in the area of specialization, and six semester hours of controlled electives.

Based upon the view of the professional as a decision-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies, and a concentration in special education.

I. Special Education Core
- EDN 501 Language Development (3)
- EDN 503 Exceptional Child Development (3)
- EDN 511 Organizational Behavior (3)
- EDN 523 Research in Education (3)
- EDN 530 Curriculum (3)

II. Concentration (21 hours)

A. Group 1 (18 hours)
- EDN 524 Consultation Strategies for Teachers of Exceptional Children (3)
- *EDN 535 Diagnosis and Teaching of Reading/Language Arts (3)
- *EDN 546 Diagnosis and Remediation in Mathematics (3)
- EDN 552 Program Development for the Mildly Handicapped (3)
- EDN 553 Classroom Management of Mildly Handicapped Children (3)
- *EDN 574 Practicum in Special Education (3)

B. Group 2 (3 selected hours)
- EDN 504 Issues and Trends in Special Education (3)
- EDN 554 Educating Young Handicapped Children (3)
- EDN 555 The Mildly Handicapped Adolescent (3)
- EDN 591 Independent Study (3)
- EDN 595 Selected Topics in Education (related to exceptional children) (3)
- EDN 599 Thesis, may be selected (6)

No language requirement is stipulated. Competence in appropriate inquiry procedures will be developed through the required course, Research in Education. A comprehensive examination will be required.

Students who are accepted provisionally (without at least one course in mental retardation, one course in learning disabilities, and one course in emotional disturbance) will need to take these courses before receiving the Master's degree.

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

Educational Administration and Supervision

The Master of Education program in Educational Administration and Supervision provides educational leadership training for individuals holding, or qualified to hold, North Carolina Class "A" teacher certification. Within the program, specialties are offered leading to certification for the professional roles of principal or curriculum-instruction specialist. The 33-semester-hour program is comprised of 15 semester hours of conceptual and technical studies common to both specialties, 12 semester hours in the area of specialization, and six semester hours of electives.

Based upon the view of the professional as a decison-maker, the program addresses the needs for conceptual and procedural bases for decision-making and for specific alternatives within the student's anticipated area of professional practice. Accordingly, the program is comprised of a "professional core" treating essential conceptual foundations and general technologies and "tracks" in which the specific information needs are addressed.

I. Administration-Supervision Core
- EDN 502 School as a Social System (3)
- EDN 510 Organization and Control of American Education (3)
- EDN 511 Organizational Behavior (3)
- EDN 521 Decision-Making (3)
- EDN 523 Research in Education (3)

II. Administrative Track
- EDN 512 Legal Structures in Education (3)
- EDN 560 Personnel Administration (3)
- *EDN 561 Leadership Application (3)
- *EDN 570 Internship in Educational Administration (3)
- Electives, Six (6) semester hours

III. Supervision Track
- EDN 500 Human Development and Learning (3)
- *EDN 520 Instructional Development (3)
- *EDN 530 Curriculum (3)
- *EDN 571 Internship in Educational Supervision (3)
- Electives, Six (6) semester hours

*Field-based activities will be required in this course. Such activities will be cooperatively designed and supervised by University and field personnel.

No language requirement is stipulated. Competency in appropriate inquiry procedures will be developed through the required courses, EDN 521, Decision Making, and EDN 523, Research in Education. A comprehensive examination will be required.

GRADUATE PROGRAM IN EDUCATION

Course Descriptions

EDN 500. Human Development and Learning (3) Designed to provide foundations for decision-making in teaching and education, this course will focus on patterns of physical and social development and on types of learning. Activities will include analysis, discussion, and application.

EDN 501. Language Development (3) Focus on the development of language and its relation to cognitive processes in young children. Theories of language learning and growth are explored in terms of patterns of evidence and in terms of implications

for decision-making affecting school children. Concepts associated with language structure, functions, and processes are developed. A variety of language and language-education topics are explored.

EDN 502. The School as a Social System (3) Designed to develop competency in the analysis of social effects upon behavior within the school, this course will include an examination of role, value, power, and control systems within schools and how these systems relate to the changing functions of the family and work place. This information will be related to current issues in the educational system, such as compulsory attendance, level of control, biculturalism, etc.

EDN 503. Exceptional Child Development (3) Prerequisite: Education 501. Designed to provide an understanding of the intellectual, emotional, and physical development of exceptional children. The interplay of biological and environmental factors that produce deviations in development is examined. Organized around a developmental approach to the study of exceptionality that suggests strategies for determining bases of exceptionality. Implications of development differences for the special educator will be stressed.

EDN 504. Issues and Trends in Special Education (3) Designed to focus on emerging directions related to the education of exceptional children. Relevant social, educational, bio-medical, developmental, psychological, and legal issues will be examined as well as implications for the schools.

EDN 505. The Reading Process (3) Prerequisite: Education 523, 525, or consent of the instructor. Develops conceptualization of the process of reading in mature readers and of stages in literary development. Analysis of psychomotor and psycholinguistic parameters of reading, word recognition and sentence processing both for beginning and advanced readers, the task of learning to read, factors affecting reading development, and of schema theories of comprehension.

EDN 510. Organization and Control of American Education (3) Designed to include a study of the roles of agencies involved in the governance of education, sources of finance and supportive services. Activities will include lectures, simulated exercises and an opportunity to participate in field activities.

EDN 511. Organizational Behavior (3) Designed to develop competancy in the analysis of behavior in educational organizations, this course will include an examination of organizational theory with particular attention to the utility of social systems theory as a basis for effective educational leadership. A variety of activities including simulation and case studies will be used to demonstrate application in school settings.

EDN 512. Legal Structures in Education (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge of constitutional, statutory, and case law related to education and knowledge of state and local governmental structures and to develop skills and abilities in analysis and design of educational practices for consistency with established legal principles. The course content will include a study of the U.S. and N.C. constitutions, selected state and federal court cases, the N.C. system of educators, federal statutes related to education, and the structures of local governments. Activities will include lecture, discussion, library research, and group and individual analysis of existing school system practices and design of legally-consistent practices.

EDN 520. Instructional Development (3) Designed to provide students with the knowledge and skill required for designing and evaluating instructional plans, units, and educational programs. This course will include concern for such topics as types of learning, learning hierarchies, task analysis, educational goal and objective formulation, assessing learner entry skills, and evaluation. The course will include a variety of activities with a strong emphasis on group problem solving and individual projects. Students will undertake projects relevant to their in-school experience.

EDN 521. Decision-Making (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge, skills, and abilities in identification and analysis of decision situations and decision alternatives, in procedures for choice, and in design and analysis of educational information system. Contents will include study of alternative decision-making models, procedures for choice, evaluation of educational programs, and educational information systems. The activities will include lecture, discussion, and simulated and real applications to decision situations in schools systems.

EDN 522. Educational Media (3) Designed to provide students with the theory and practical skills necessary for selecting, producing, and evaluating mediated materials in education. Students will learn to produce a variety of audio-visual materials including graphics, transparencies, slides, video-tapes. In addition, there will be considerable emphasis on photography including developing and printing. Instruction in operating and troubleshooting equipment will also be treated. The primary goal of this course is to develop confidence and competency in the media area. This course will include lectures and a workshop format. Students will produce a variety of mediated projects during the course.

EDN 523. Research in Education (3) Designed to develop research competencies required for interpretation and critique of research report and for design and conduct of research for educational decision-making. Contents will include measurement, problem identification and analysis, research design, selected statistical analysis procedures, data interpretation and reporting and research critique. Activities will include lecture, discussion, research critique, simulated and actual proposal development, simulated report development, and computer analysis of actual data.

EDN 524. Consultation Strategies for Teachers of Exceptional Children (3) Designed to develop communication skills relevant for the decision-making roles of the special education teacher. Emphasis on group dynamics, conflict resolution, generation of alternative solutions, interview procedures, parent conferences, team meetings, orientation of general educators, and mainstreaming handicapped children.

EDN 525. Tests, Measures, and Measurement in Education (3) Prerequisite: Education 201, Education 520, or approval of instructor. Design to develop a conceptual framework for obtaining and interpreting data about behavioral and psychological traits of persons which may be needed for a variety of purposes. Particular attention will be given to developing understanding of validity of measures for the intended purposes and for assessing the trait which is intended to be measured. Students will learn to make judgements of validity of testing systems and, to develop valid tests and testing systems. Mathematical and statistical tools for analyzing items, tests, and scores will be studied, and students will practice their use. Students will learn to use computers for test development, test administration, and to analyze records of performance on tests.

EDN 530. Curriculum (3) Develops a conceptual framework for understanding curriculum in relation to other aspects of educational systems. Students learn to evaluate curricula in terms of structural elements, underlying value orientations, and assumptions about subject matter and about learning. Introduction to issues of curriculum change, implementation, evaluation, development, and design.

EDN 531. Study of Teaching in Early Childhood Education (3) Prerequisite: Education 500, 501, 502, 520, or department approval. Designed to improve teaching performance and to develop competencies in the critical analysis of teaching in the early grades, this course will include an in-depth study of teaching in the early grades by observation and participation using different interaction analysis formats for studying and analyzing teaching.

EDN 532. Comparative Studies in Early Childhood Education (3) Prerequsite: Education 502 or approval of department. Designed to provide information for comparing and contrasting preschools from an international perspective, this course will include an in-depth cross-cultural survey of early childhood education in selected countries. The history of philosophical thoughts, the political and socio-economic changes and research efforts from these selected countries of interest to American early childhood educators will be studied and discussed.

EDN 533. Early Childhood Education in Focus (3) Prerequisite: Education 500, 501, 502, or approved of department. Designed to develop the ability to look to current trends and issues in early childhood education. Objectively, this course will include critical analysis of present exemplary programs, practices, resources, and legislation related to early childhood education. The student will be involved in identifying unresolved issues in early childhood education and writing position papers about these issues.

EDN 534. Teaching Developmental Reading (3) Develops understandings of an effective classroom reading program. Reviews practices, materials, and approaches for teaching basic reading skills through the analysis of research literature and critique of personal beliefs and practices.

EDN 535. Diagnosis and Teaching of Reading/Language Arts (3) Prerequisite: Education 501 and 530. Designed for the elementary and reading teacher, this course focuses on building the skills and understanding needed to become a diagnostic teacher. In addition to the review of skills sequences in reading/language arts, the student will study a variety of disgnostic material and techniques will strengthen knowledge about the skills in the selection of appropriate materials, techniques and methods in teaching. Development of informal tests as well as experiences in actual diagnosis will be required.

EDN 536. Teaching Reading in the Content Area (3) Designed for the middle grades teacher of math, science, social studies, and English, this course will identify those skills of reading needed in all content areas as well as those specific to each content area. Emphasis will be placed on the study of strategies useful in teaching reading in the content area classroom. Besides the study of appropraite commercial materials, students will be required to develop their own materials useful for teaching reading in a particular content area.

EDN 537. Linguistics for Teachers (3) A study of current American English and of the principles of scientific analysis of spoken and written language; emphasis on understanding that nature and structure of the language that students bring into the classroom.

EDN 538. The Teaching of Writing (3) Intensive review of principles of grammar, rhetoric and usage (approximately 1/2 of course), followed by projects using and evaluating actual samples (both expository and creative) from school-age writers; attention also to methods of instruction and to the range, usefulness and availability of classroom materials.

EDN 539. Children's Literature (3) Prerequisite: Education 500, 501, 502, 520, or approval from department. Designed to develop skills and understanding which would improve teachers' competencies in formulating sound literature programs, this course will include an in-depth study of the functions of children's literature and the different criteria for evaluation of the various types of literature suitable for children at various developmental levels. Areas of influence that are producing change such as paperbacks, minorities in children's books, sexism and censorship will be discussed.

EDN 540. Adolescent Literature (3) A comprehensive study of literature appropriate for the middle grades, its value in the school curriculum and its importance in fulfilling intellectual, emotional, and cultural needs of young people. Evaluation and bibliography are emphasized; classroom techniques and the use of related material are covered. Projects related to instructional preparation and student activities are required.

EDN 542. The Teaching of Mathematics (3) Prerequisite: Education 500 and 530. Focus on materials and methods for teaching mathematics in grades K-9, with emphasis on the logical, psychological, and sociological foundations of mathematics education. A survey of curricula appropriate at the K-9 level. Library research in current topics related to the teaching of mathematics.

EDN 543. The Teaching of Social Studies (3) Prerequisite: Education 500, 501, 530. Special emphasis is given to the various techniques and methods to be used in the teaching of social studies. Teaching strategies including simulation, injury and value clarification will be explored through research, observation, demonstration, and, when applicable, field trips. Each student will prepare a major unit of study which will require both individual and group participation.

EDN 544. Teaching of Science in the Elementary School (3) To assure that science at the elementary school level is taught from a theoretical and conceptual base, content will include studying theories and concepts related to science taught at the elementary school level. Activities will include development of successful methods of teaching through the use of individual and group projects. Opportunities will be provided to field test methods proposed. Materials needed for a successful science program and sources from which these materials may be secured will be discussed.

EDN 545. Black Literature and Resources for Teachers (3) A survey of Black literature, including the examination of material published for classroom use in the public schools and the authors who have made contributions to this field.

EDN 546. Diagnosis and Remediation in Mathematics (3) Prerequisite: Education 500, 530, and 542. The study and application of teaching mathematics in the diagnostic mode. Included will be a historical review of diagnostic procedures in mathematics, a survey of mathematics curriculum, an examination of the theoretical models of diagnosis and of materials useful to the classroom teacher or clinician. Intensive work with children experiencing difficulty in mathematics will be required.

EDN 547. Integrating Language Arts and Reading: Classroom Practice (3) Develops student ability to conceptualize and implement a classroom communication arts program. Analyzes patterns of learning and practices in teaching language arts processes and skills. Examines strategies for fostering language arts growth through integrated language activities. Field activity required.

EDN 548. Inquiry — The Method of Science (3) The course assumes initial level competency in the curriculum and methods of science. The course will focus on the conceptualization of and rationale for using the inquiry method of teaching science. Students will participate in activities taken from a variety of science curriculum programs for elementary through senior high school. The course will also provide students with an opportunity to acquire and practice the skills needed to utilize the inquiry method and to guide scientific investigations at K- 12 levels. Methodology and types of activities appropriate to the student's level of teaching will be selected.

EDN 549. Middle School Education (3) Prerequisite: Education 500 and 502. Education 530 recommended. Study of educational programs for upper elementary education (junior high, middle school, intermediate school). Review of learning, physical, and social characteristics of "transescents" and historical and current approaches to their education. Comparison and contrast of curriculum, instruction, administrative and organizational features of exemplary and typical intermediate, middle and junior high schools.

EDN 550. Nature and Needs of Exceptional Children (3) This course is designed to provide a comprehensive survey of the major categories of exceptional children. Emphasis will be on characteristics, etiology, educational procedures, and psychosocial implications. Activities will include lecture, discussion, and practical applications of concepts and strategies. This course is only open to elementary majors and administration/supervision majors.

EDN 552. Program Development for Mildly Handicapped (3) Prerequisite: Education 502 and 530. Designed to develop an understanding of how to develop and teach relevant curriculum to handicapped children through systematic instruction. Focus on characteristics and etiology, assessment, planning, implementaton of instructional plans, and selection and utilization of appropriate methods and materials for a wide range of curricular areas.

EDN 553. Classroom Management of Mildly Handicapped Children (3) Designed to develop knowledge and skills, necessary for planning and implementing various classroom management strategies. Focus on observation and measurement of behaviors, design of classroom management strategies, utilization of strategies in the special education and regular classroom environment.

EDN 554. Educating Young Handicapped Children (3) Overview of early childhood education for the handicapped. Trends toward early identification of handicapping conditions and appropriate intervention strategies will be examined. Methods for dealing with developmental delays in regular and special preschool settings will be studied. Working with parents and primary caretakers of young handicapped children will be emphasized.

EDN 555. The Mildly Handicapped Adolescent (3) Designed to provide a basis for understanding the educational needs of mildly handicapped adolescents. The following topics will be covered during the course: the impact of handicapping con-

ditions on the developmental tasks of adolescence; strategies for the remediation of deficits in basic skills; the interrelationship of vocational intervention; the current status of educational programs for the mildly handicapped.

EDN 559. Adult Literacy (3) Examines the definition of illiteracy and the problem of adult literacy. Reviews approaches to dealing with the problem from philosophic, pedagogical, and sociological bases. Reviews the many movements to overcome the problem in the United States and abroad. Provides students with ideas, methods, and materials for teaching adults to read.

EDN 560. Personnel Administration (3) Prerequisite: Education 502, 510, 511, 521, or permission from department. Designed to develop knowledge, skills, and abilities in specification and analysis of roles and role performance, and in selection, supervision, and utilization of personnel resources. The contents will include educational roles, criteria for role performance, personnel selection criteria and procedures, personnel policies and practices, and labor relations. Activities will include lecture, discussion, analysis and design of simulated and actual personnel procedures, and a variety of simulated personnel related tasks.

EDN 561. Leadership Applications (3) Prerequisite: Education 502, 510, 511, 521, or permission from department. Designed to develop skills and abilities in analysis, initiation, establishment, and maintenance of specific educational procedures. The contents will include specific procedures for scheduling, office management, pupil control, co-curricular program design and management, curricular program design an management, communications, information systems, and budgeting. Activities will include lecture, discussion, visitation, simulated and actual applications, and selected practicum experiences.

EDN 562. Automation in Administrative and Instructional Practices (3) Prerequisite: Education 510 or permission from department. Designed to develop knowledge, skills, and abilities required for decision-making about automation of procedures and for design and implementation of automated procedures. The content will include a study of alternative procedures for automation, including computer applications and specific procedures for personnel accounting, scheduling, planning, instruction, and information management. Activities will include lecture, discussion, and a variety of simulated and real design, analysis, and production problems.

EDN 563. Educational Environments (3) Prerequisite: Education 502, 510, 511, or permission from department. Designed to develop knowledge, skills, and abilities in the analysis, design, and change of physical and social environments in education. Contents will include design, organization, control, and effects of physical and social climates of schools and classrooms. Activities will include lecture, discussion, library research, and a variety of group and individual simulated and real design and analysis problems.

EDN 564. Politics and Policy-Making in Education (3) Designed to study the theories, processes, functions, limits, alternatives, goals, and consequences of policy-making as the primary objective of politics in education; evaluation and analysis of policy-making at the local, state and federal levels of education; nature and dynamics of policy-making by local and state school boards, state legislatures and the federal government.

EDN 570. Internship in Educational Administration (3) Designed to provide experience related to major aspects of the role of principal. Observation will be made of principals and assistant principals and reports written based on these observations

and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the principal's role in task areas such as staff development, supervision and evaluation, community relations and student development. Additional topics of investigation will include such adminstrative task areas as budget development, budget allocation, fiscal management, reporting and instructional scheduling. Students with experience in the role of principal or assistant principal may request waiver of this course requirement.

EDN 571. Internship in Educational Supervision (3) Designed to provide experiences related to major aspects of the role of supervisor. Observations will be made of supervisors and reports written based on these observations and literature reviews. The major emphasis of the internship will be upon the human resources management aspects of the supervisor's role in task areas such as staff development, teacher relations, principle relations, and relations with outside consultants. Additional topics of investigation will include such supervisory task areas as program planning, curriculum review, budget development, budget allocations, fiscal management, and reporting. Students with experience in the role of supervisor may request waiver of this course requirement.

EDN 572. Practicum in Reading (3) Prerequisite: Education 535. Designed to provide a supervised practicum for the diagnosis and remediation of typical disabled readers. Students will administer diagnostic tests, plan a remediation program, remediate a remedial reader, and generate an educational report of the reading program, results and prognosis. Consultation with appropriate school, agency, and family members is expected.

EDN 573. The Disabled Reader (3) Prerequisite: Education 535, 572. Designed to develop competence and performance in testing teaching, and designing reading/learning programs for the severely disabled reader. Appropriate referral services will be identified. Consultation skills will be developed. Supervised practicum required.

EDN 574. Practicum in Special Education (3) Designed to provide a supervised internship in a cross-categorical special education setting. Provides experiences in diagnosing individual needs, developing educational programs, instructing mildly handicapped students, designing and implementing classroom management techniques, and consulting with teachers, administrators, parents and other professionals.

EDN 591. Independent Study (3) Prerequisite: Fifteen semester hours of graduate credit and permission of instructor. Intensive study of topic in the student's area of specialization.

EDN 595. Special Topics in Education (1-4) Seminars of varying duration andd credit may be arranged for the study of special topics relevan to student needs not served by established graduate courses. Seminars of this nature may be offered only upon approval of the Director of Graduate Studies. A maximum of six semester credit hours may be counted toward degree requirements.

EDN 599. Thesis in Education (1-6) Prerequisite: Education 523, at least 18 additional hours toward master's degree, and permission of instructor. Intensive study of topic selected by student and approval by thesis committee. Includes definition of problem, review of related literature, application of appropriate methodology, and interpretation of results and conclusions. Oral presentation and defense of thesis required.

MASTER OF SCIENCE IN GEOLOGY

The University of North Carolina at Wilmington offers a program of study leading to the Master of Science degree in Geology. The specific goals of the program are to provide advanced research and educational opportunities in the geological sciences, and to prepare geologists for solving contemporary problems in sedimentary geology. Specific objectives of the program are: 1) to develop research competence in sedimentary geology, 2) to develop professional competence in the assessment of water, energy and mineral resource potentials, 3) to develop a level of research competence in geology that encourages continued effort toward the doctoral degree, and 4) to provide the scientific community with meaningful research data on marine, coastal, and coastal plains geology.

Degree Requirements

1. The program requires at least 30 semester hours of graduate credit, with a maximum of six credit hours for the thesis and three credit hours for seminars. A maximum of six semester hours of graduate credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to "B" or better. A minimum of 24 semester hours of graduate courses must be completed at UNCW; this includes both course work and thesis.

2. Each student must successfully complete a comprehensive qualifying oral examination which is administered no earlier than the semester the student is enrolled in final course work.

3. Each student must complete an approved course of study within five years of the date of first registration for graduate study.

4. Each student must present and defend a thesis, based on original research, acceptable to the committee, prior to graduation. The thesis defense is open to the public.

GRADUATE PROGRAM IN GEOLOGY

Geology Course Descriptions

GLY 510. Ancient Sedimentary Environments (3) Prerequisite: Petrology, stratigraphy, field camp. Survey of ancient sedimentary environments with an evaluation of the criteria used in their recognition in the rock record. Specific ancient sedimentary sequences are examined and compared to their modern counterparts. Three lecture hours per week. Field trips.

GLY 511. Clastic Petrology (3) Prerequisite: Optical mineralogy. Classification and description of sandstones and mudrocks and evaluation of their diagenesis. Application of principles to economic deposits. Laboratory exercises concentrate on microscopic and X-ray techniques of analysis. Two lecture and three laboratory hours per week. Field trips.

GLY 512. Carbonate Petrology (3) Prerequisite: Optical mineralogy. Ancient carbonate rocks and modern carbonate depositional environments. Evaluation of the diagenetic processes of cementation, dolomitization and silicification, and the relationship of carbonate rocks to economic deposits. Two lecture and three laboratory hours per week. Field trips.

GLY 515. (Marine Biology 555) Methods in Sedimentology (3) Prerequisite: Petrology. A survey of the parameters of sedimentation. Emphasis on the processes involved in the formation of sedimentary rocks, including their origin, transport, deposition and lithification [of rock-forming minerals]. Techniques of physical and chemical analyses of sediments are stressed. One lecture and six laboratory hours per week. Field trips.

GLY 531. Micropaleontology (4) Prerequisite: Invertebrate paleontology or consent of instructor. Paleobiology and geological history of micro-organisms, emphasizing the classification and systematics of major microfossil groups. Three lecture and three laboratory hours per week. Field trips.

GLY 532. Biogeography (3) Prerequisite: Consent of instructor. Principles and methodology underlying the study of the distribution of organisms in aquatic and terrestrial environments; description of modern global distribution patterns and their development by physiographic, climatic, and evolutionary events in the past. Three lecture hours per week.

GLY 533. Paleoecology (3) Prerequisite: Invertebrate paleontology or consent of instructor. Principles of ecological faunal analysis as primarily applied to the marine fossil record. Emphasizes the integration of form and function, taphonomy, and community development through time, and sedimentology/stratigraphy as a synthetic approach to paleoenvironmental, paleobiological and evolutionary analyses. Applications to biostratigraphy are considered. Three lecture hours per week. Field trips.

GLY 535. Stratigraphic Paleontology (3) Prerequisite: Invertebrate paleontology, stratigraphy. Analysis of the stratigraphic distribution of invertebrates emphasizing the Cretaceous and Cenozoic fossil record; application of biostratigraphic principles and techniques in the development of high resolution relative time scales; practical experience in the stratigraphic aspects of paleontology through field, laboratory and literature research. Two lecture and three laboratory hours per week. Field trips.

GLY 540. Regional Geology of North America (3) Prerequisite: Structural geology, stratigraphy. Survey of the rocks, structures, natural resources, and tectonic histories of different regions of North America, such as the Precambrian shield, Appalachians, and Cordillera. Syntheses of theories of orogenesis. Three lecture hours per week.

GLY 542. Structural Evolution of Continental Margins (3) Prerequisite: Structural geology, stratigraphy. Structural characteristics and tectonic frameworks of passive and active continental margins. Comparison of modern settings and ancient analogs in the rock record. Three lecture hours per week.

GLY 550. Marine Geology (4) Prerequisite: Consent of instructor. Topography, sediments, structure and geologic history of the marine and estuarine environment. Three lecture and three laboratory hours per week. Field trips.

GLY 552. Coastal Sedimentary Environments (4) Prerequisite: Consent of instructor. Sedimentary processes and environments of the world's coastal systems. Emphasis on river deltas, estuaries, bays, salt marshes, barrier islands and associated inlets. Ice-bound as well as rocky coastlines are also examined. Three lecture and three laboratory hours per week.

GLY 555. Ocean Basin Sediments (3) Prerequisite: Consent of instructor. Classification and recognition of ocean basin sediments and their spatial distribution within the sedimentary record. Additional emphasis on the effects of ocean bottom and near bottom currents in the erosion, transport and deposition of the terrigenous and biogenic components. Techniques of physical and chemical analysis are stressed. Two lecture and three laboratory hours per week.

GLY 560. Advanced Stratigraphy (3) Prerequisite: Invertebrate paleontology, stratigraphy, petrology. Stratigraphic analysis of the geologic history of North America and parts of other continents. Emphasis on interpreting lithologic assemblages and stratigraphic relations in terms of modern tectonic-depositional models. Two lecture and three laboratory hours per week.

GLY 561. Coastal Plains Geology (3) Prerequisite: Invertebrate paleontology, stratigraphy, petrology. Origin and development of Gulf and Atlantic Coastal Plains with emphasis on stratigraphy, structure, geomorphology and tectonic history. Three lecture hours per week. Field trips.

GLY 563. Seismic Stratigraphy (3) Prerequisite: Geology 510 or consent of instructor. Seismic interpretation as a means of examining the stratigraphic framework of basins and continental margins. Relationships between seismic data and depositional systems. Introduction to obtaining and processing reflection data and sound propagation. One lecture and six laboratory hours per week.

GLY 571. Sedimentary Geochemistry (3) Prerequisite: one year each of chemistry, physics and calculus. Application of geochemistry to the formation and diagenesis of sediments and sedimentary rocks. Examination of mineral precipitation, sediment cementation, metasomatism and chemical erosion. Three lecture hours per week.

GLY 580. Economic Mineral Deposits (3) Prerequisite: Mineralogy, petrology and one year of chemistry. Description of metallic and nonmetallic mineral deposits that characterize island arcs, spreading centers, and intracontinental areas. Magmatic, hydrothermal, and sedimentary proesses of ore formation. Three lecture hours per week. Field trips.

GLY 590. Topics in Sedimentary Geology (1-3) Prerequisite: Consent of instructor. Advanced special topics in sedimentary geology through lectures, seminars, laboratory or field experience.

GLY 591. Directed Independent Study (1-3)

GLY 595. Seminar (1) Prerequisite: Consent of instructor. Discussion of selected areas in sedimentary geology. Two hours per week.

GLY 599. Thesis (1-6)

MASTER OF SCIENCE IN MARINE BIOLOGY

The University of North Carolina at Wilmington offers a program of study leading to a Master of Science degree in Marine Biology. The program is designed either (1) to prepare students for further graduate work leading to a Ph.D. degree elsewhere; (2) to prepare students as professional biologists or as managers of coastal and marine resources, trained to deal with contemporary problems in the environment; or (3) to upgrade the effectiveness of classroom instruction by public school teachers. The curriculum of the program allows students to elect one of three tracks: Marine Biology, Biological Oceanography, or Coastal Biology. Within each track, a student and his/her faculty committee have the necessary latitude to develop a plan of study which will meet the particular needs of the individual.

Degree Requirements

1. Programs leading to the Master of Science degree require a minimum of thirty semester hours of graduate study. A maximum of 6 semester hours of credit may be transferred from another accredited institution. Grades earned on transfer work must be equivalent to "B" or better. A minimum of 24 semester hours of graduate study must be completed in residence.

2. The student must demonstrate competency in a foreign language: French, German, Spanish, or Russian. A computer language, e.g. PL/1, FORTRAN, or BASIC, may be substituted for the foreign language requirement upon the commitee's approval.

3. The student must successfully complete a qualifying examination consisting of two parts: a written comprehensive examination based upon prior course work, and a comprehensive oral examination administered by the committee.

4. Each student will present a thesis, based on original research, acceptable to the committee, prior to graduation.

5. Each student must complete an approved course of study within five years of the date of first registration for graduate study.

Requirements for the Marine Biology track:

A minimum of six hours from the following:
MBY 560 Estuarine Biology (3)
MBY 562 Coastal Ecosystems (3)
MBY 564 Biological Oceangraphy (3)
MBY 569 Advanced Oceanography (3)
and:
MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 599 Thesis (3-6)

A minimum of 15 hours of electives of which at least 12 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Independent Study) may be used.

Requirements for the Biological Oceanography track:

MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 564 Biological Oceanography (3)
MBY 569 Advanced Oceanography (3)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 596 Seminar at Sea (1)
MBY 599 Thesis (3-6)

A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Independent Study) may be used.

Requirements for the Coastal Biology track:

MBY 501 Introduction to Scientific Research and Presentation (1)
MBY 560 Estuarine Biology (3)
MBY 562 Coastal Ecosystems (3)
MBY 592 Seminar at the Coast (1)
MBY 593 Colloquium in Marine Biology (1)
MBY 595 Seminar in Marine Biology (1)
MBY 599 Thesis (3-6)

A minimum of 14 hours of electives of which at least 9 hours must be in biology courses. No more than 3 credits of MBY 591 (Directed Indpendent Study) may be used.

Deficiencies will be ascertained by the student's committee and will be remedied prior to graduation.

GRADUATE PROGRAM IN MARINE BIOLOGY

Marine Biology Course Descriptions

MBY 501. Introduction to Scientific Research and Presentation (1) Scientific manuscript preparation and communication techniques: manuscript format, graphics, design of experiments, library use, and writing techniques. One lecture and one laboratory hour per week.

MBY 510. (Statistics 410) Applied Statistical Methods (3) Prerequisite: Credit in statistics. After a review of elementary statistics, the following major areas are studied: nonparametric methods, analysis of variance and experimental design and regression analysis. Three hours each week.

MBY 512. (Biology 410) Electron Microscopy and Cell Ultra Structure (3) Prerequisite: Course in cell physiology or permission of instructor. A discussion of the general and specialized techniques of transmission and scanning electron microscopy and their application to the elucidation of the structure and functon of cell organelles in plants and animals. Three hours per week.

MBY 512-51. (Biology 410-51) Electron Microscopy Laboratory (1) Corequisite: Marine Biology 512 and permission of instructor. Techniques for fixing, embedding and thin section of tissue will be demonstrated. Students will prepare a material of choice for observation and analysis and examine the prepared material with the electron microscope. Three laboratory hours per week.

MBY 515. Membrane and Neurobiology (4) Prerequisite: Course in physiology or permission of instructor. Introduction to the principles of diffusion, osmosis, active transport and membrane biophysics with emphasis on cellular and whole animal ionic and osmotic regulation, and neurophysiology. Emphasis will be placed on marine invertebrates and vertebrates. The laboratory will give experience in ion measurements, radioisotope handling, flux studies, and neurophysiological techniques. Three lecture and three laboratory hours each week.

MBY 520. (Biology 415) Vertebrate Histology (4) Prerequisite: Credit in biology. An introduction to the cytology and morphology of vertebrate cells and tissues, including examination of the four major histological tissues: epithelium, connective tissue, muscle, and nerve. Other topics include the techniques and instrumentation of light microscopy and selected methods of sectioning, fixation, and staining of tissues. Student project required. Three lecture and three laboratory hours each week.

MBY 525. Marine Microbiology (4) Prerequisite: Course in microbiology or permission of instructor. Concepts of structure and function of microbes, nutrition, metabolism adaptation and genetics as related to the marine environment. The laboratory will center on techniques of studying microbes and their ecology, and the systematics of important micro-organisms. Three lecture and three laboratory hours each week.

MBY 530. Invertebrate Evolution (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. Critical analysis of current theories on the origin of the invertebrates and on origins of invertebrate phyla. The course will include a review of the historical development of evolutionary thought concerning invertebrate phylogeny, both from a neontological and palenontological viewpoint. Relevant data from modern studies in embryology, larval development, comparative morphology,

functional morphology and serology will be stressed. Each student will be required to prepare a summary paper on the status of knowledge for a selected invertebrate group. Three hours each week.

MBY 531. Population Genetics (3) Prerequisite: Genetics. Basic principles of the dynamics of genes within populations. Topics include fitness, polymorphism, genetic equilibrium, and the effects of non-random mating and selection. Three hours each week.

MBY 534. (Biology 466) Advanced Ecology (4) Prerequisite: Ecology. Advanced selected topics in ecosystem energetics, population dynamics, and community ecology. Emphasis on team teaching and student research. Two lecture and four laboratory hours each week.

MBY 535. (Biology 435) Molecular Genetics (3) Prerequisite: A course in genetics, biochemistry or cell physiology. An overview of current understanding of the nature, function, and control of genes. Topics include the nature of genetic information; the sequence organization and packaging of the eucaryotic genome; DNA, RNA, and protein systhesis; recombinant DNA technology; RNA processing; transposable genetic elements; and antibody diversity synthesis and function. Three lecture hours each week.

MBY 536. (Biology 436) Recombinant DNA Techniques (2) Prerequisite: A course either in genetics, physiology, or biochemistry. Basic principles and techniques of gene cloning using three major types of cloning vectors: lambda phage, plasmids, and the single stranded DNA phage M13. Provdies hands-on experience in recombinant DNA methodology. One lecture and four laboratory hours each week.

MBY 537. (Biology 457) Ichthyology (4) The systematics, evolution, and natural history of fishess, with field work emphasizing the ecology and behavior of fishes. Field trips and individual research projects required. Three lecture and three laboratory hours each week.

MBY 538. Cytogenetic Methodology (2) A laboratory course introducing the techniques necessary to study and analyze the chromosomes of a variety of organisms including plants and animals. One four-hour laboratory each week.

MBY 540. (Biology 465) Biochemistry (3) Prerequisite: Organic Chemistry. Chemical properties and metabolism of amino acids, proteins, carbohydrates, lipids, and nucleic acids;. enzyme kinetics; bio-energetics, regulatory mechanisms. Three hours each week.

MBY 544. (Biology 440) Developmental Biology (4) Concepts of mechanism and control in development. Topics include cell lineage determination, differential gene activity, cell recognition phenomena, hormones, and environnmental control of develoment. Plant and animal systems studies in modern research literature will be discussed. Three lecture and three laboratory hours each week.

MBY 545. (Biology 445) Marine Physiology (4) Introduction to physiological systems characteristic of marine vertebrates and invertebrates. Emphasis is placed on the mechanisms underlying osmoregulation, respiration, temperature regulation, digestion and movement. Three lecture and three laboratory hours each week.

MBY 550. Vertebrate Systematics (4) Prerequisites: Two of the following: Ornithology, Herpetology, Mammalogy, Ichthyology. A detailed study of the processes of speciation in the vertebrates, including the theoretical and pragmatic approaches. Nomenclatorial procedures will be discussed. Three lecture and three laboratory hours each week.

MBY 551. Advanced Vertebrate Biology (2) Prerequisite: Permission of instructor. Individualized instruction in the identification, classification, and habitats of the terrestrial vertebrates of the coastal zone. This course will emphasize field methodologies and is designed to fill gaps in each student's knowledge of the classes of terrestrial vertebrates. Four laboratory hours each week.

MBY 552. (Biology 462) Deep Sea Biology (3) The biology of animals inhabiting the deep see environment off North Carolina. Emphasizes faunal zonation, abyssal zoogeography, high pressure and low temperature adaptations, reproductive strategies, origin and speciation in deep sea. Three hours each week.

MBY 553. Natural History of Intertidal Organisms (3) Prerequisite: Basic course in invertebrate biology or permission of instructor. A study of the strategies adopted by major invertebrate groups inhabiting the itertidal zone. Field trips will permit the student to observe and identify relationships between vertical ranges of intertidal organisms and local biological and physical parameters that define zonation. An individual or group project on some aspect of recruitment, site preference, succession, or competition in intertidal populations will be required. Two lecture hours and field work.

MBY 554. (Biology 452) Mammalogy (4) A study of mammals, emphasizing their evolution, taxonomic relationships, structural and physiological adaptations, and life histories. Laboratory sessions will include collection, identification, and preparation of specimens and observations of mammals in the field. Three lectures and three laboratory hours each week.

MBY 555. Methods in Sedimentology (4) Prerequisite: Introductory course in geology or permission of instructor. An introduction to the most important analytical techniques and research procedures that are currently used for studying sediments. Techniques included are: size analysis; grain shape; grain surface texture; textural analysis; compositional analysis; and chemical analysis. Two lectures and two-hour laboratories each week.

MBY 556. (Biology 456) Ornithology (4) An introduction to the life of birds. Emphasis will be on the identification, classification, evolution, ecology, and life histories of the birds of North Carolina. Three lecture and three laboratory hours each week.

MBY 557. (Biology 454) Herpetology (4) A study of the biology of amphibians and reptiles of the world. Natural history, ecology, morphology, and taxonomic relationships are stressed. Three lecture and three laboratory hours each week.

MBY 558. Biology of Recreational and Commercial Fishes (3) Prerequisite: Basic course in ichthyology or permission of the instructor. Topics will broaden the student's knowledge of management of economically and socially important aquatic resources through discussions on ecology and fisheries oceanography, aquaculture, fish diseases and contemporary research. The emphasis will be upon fishes, but the course will include information on shrimp, molluscs, whales and other marine species. Two lecture and three laboratory periods each week.

MBY 559. (Biology 481) Marine Invertebrate Zoology (4) A field oriented course which provides in-depth ecological and taxonomic treatment of selected invertebrate groups. Three lecture and three laboratory hours each week.

MBY 560. Estuarine Biology (3) Prerequisite: Course in general ecology or permission of instructor. A study of the physical, chemical and biological interactions within estuaries emphasizing nutrient cycles and energy flows in estuarine ecsosystems. Two lecture and three laboratory hours each week.

MBY 561. Barrier Island Ecology (3) Prerequisite: Course in general ecology or permission of instructor. A survey of the dune forest and tidal marsh flora and vegetation. Topics will include descriptive, physiological and applied aspects of barrier island plants. Special topics include dune environment, halophytes, salt-spray effects, marsh energetics and nutrient cycling. Quantitative techniques will be used in characterization of island communities. Two lecture and three laboratory hours each week.

MBY 562. Coastal Ecosystems (3) Prerequisite: Course in general ecology or permission of instructor. Ecology of the major plant communities on the Coastal Plain. Systematics, structure and functions of the coastal community will be emphasized. Biotic and environmental sampling and comparison techniques will be emphasized. Two lecture and four laboratory hours each week.

MBY 563. Physical Oceanography (4) Dynamics and physics of the ocean with emphases on the physical properties of sea water, flow dynamics, and circulation. The laboratory will emphasize instrumentation, data collection, and analyses of marine dynamics. Three lecture and three laboratory hours each week.

MBY 564. Biological Oceanography (3) Encompasses a spectrum of special topics on factors that control the distribution patterns of marine organisms. The topics include: identification and evolution of marine biomes; seasonal, temporal and spatial trends in temperate marine environment; tropical vs polar marine productivity; temperature of water masses and biological implications with emphasis on gulf stream biology; pelagic and benthic community structure; marine food chain and trophodynamics; models of energy flow and budgets; biology of outer continental shelf; recruitment mechanism as influenced by natural and man-made causes. Special emphasis will be placed on methods of data gathering and theories behind advanced biological oceanographic techniques. Each student will specialize in a selected topic and will present a report at the end of the term. Three hours each week.

MBY 565. (Biology 458) Fisheries Biology (4) Prerequisite: Ichthyology, one course in statistics, and consent of instructor. Advanced studies in the biology of fishes. Such topics as age, growth, foods, parasites, population dynamics, reproduction, and economic pressures are covered. A technical report on the biology of a fish species is required. Three lecture and three laboratory hours each week.

MBY 566. Behavioral Ecology of Reef Fishes (3) Prerequisite: Course in ichthyology or permission of instructor. An ecological and ethological approach to the study of reef fish biology. Current theories and problems dealing with the ecological niche, competition, social systems, and population biology. Two lecture and three laboratory hours each week.

MBY 567. (Biology 460) Limnology (4) Prerequisite: A laboratory course in inorganic chemistry or permission of instructor. An examination of the physical, chemical, and

biological characteristics of freshwater systems, particularly lakes, with an emphasis on the interrelationships of these characteristics. Three lecture and three laboratory hours each week.

MBY 569. Advanced Oceanography (3) Prerequisite: An introductory descriptive oceanography course. This course will consider mechanisms and dynamics of the ocean: the physical processes propelling oceanic currents, the reception and transmission of energy, and its influence upon living systems, statics and dynamics of waves, chemical distribution in the sea and their influence upon living marine organisms, dynamics of fertility and productivity in the marine environment. Two lecture and three laboratory hours each week.

MBY 570. (Biology 468) Planktonology (4) Prerequisite: Invertebrate Zoology or consent of instructor. The classification, productivity, life histories, and interrelationships of planktonic organisms and a survey of the literature dealing with plankton. Two lecture and four laboratory hours each week.

MBY 572. (Biology 472) Marine Phycology (4) An introduction to the morphology, life histories, and ecology of benthic marine algae with emphasis on special topics such as morphogenesis, ecotypic variation and speciation, phytogeography, or seasonal periodicity of growth and reproduction. Three lecture and three laboratory hours each week.

MBY 574. (Biology 475) Plant Taxonomy (4) Prerequisite: Introductory Botany. An introduction to identification, classification, and nomenclature of vascular plants with emphasis on the flora of Southeastern North Carolina. Two lecture and four laboratory hours each week.

MBY 575. Taxonomy of Aquatic and Wetland Plants (3) Prerequisite: Introductory Taxonomy or consent of instructor. Discussion, collection, and identification of vascular plants found in the aquatic and wetland habitats of coastal North Carolina. Extensive field work and individualized instruction in collection and identification techniques. Two lecture and three laboratory hours each week.

MBY 576. (Biology 474) Comparative Morphology of Vascular Plants (4) A detailed study of the major groups of vascular plants with emphasis on structure, life histories, development, and phylogeny. Three lecture and three laboratory hours each week.

MBY 577. Marine and Estuarine Mycology (3) Prerequisite: Mycology or permission of instructor. An in-depth survey of the mycoflora of oceanic and estuarine waters with emphasis on collecting and culturing techniques. An in-depth treatment of taxonomy and ecology of important fungal groups will also be given. Two lecture and three laboratory hours each week.

MBY 580. (Biology 480) Field Studies in Biology (1-6) A research experience-oriented field course offered in selected regional locales. Emphasis is placed on distribution, taxonomy, and ecology of animal and/or plant organisms.

MBY 585. (Biology 485) Special Topics in Advanced Biology (1- 6) Designed to deal with selected topics not considered in detail in regular course offerings. More than one topic may be taken for credit.

MBY 588. (Chemistry 476) Chemical Analysis of Natural Waters (2) Prerequisite: Permission of instructor. Evaluation of common chemical methods for the analysis

of complex natural waters is included. Appropriate use of these methods is demonstrated. Analyses studied include salinity, chloride, dissolved oxygen and oxygen demand, pH and alkalinity, nutrients, chlorophyll, suspended materials, and dissolved metals. One lecture and three laboratory hours each week.

MBY 589. (Chemistry 475) Chemical Ocenography (3) Sources, distribution, forms of occurrence, and reactions of chemical species in seawater. This course will emphasize estuarine reactions, dynamic equilibria, air-seawater and sediment-seawater reactions, and human impact on the oceans. Prior Geology 150 is recommended. Three hours each week.

MBY 591. Directed Independent Study (3)

MBY 592. Seminar at the Coast (1) Participation in planning and conducting a series of field exercies in the coastal zone of North Carolina.

MBY 593. Colloquium in Marine Biology (1) Investigation and discussion of selected topics and current issues through the interaction of students, faculty, and expert guest lecturers.

MBY 595. Seminar in Marine Biology (1) Discussion of selected topics in marine biology.

MBY 596. Seminar at Sea (1) Participation in pre-cruise planning and a biological oceanographic cruise to obtain practical knowledge on methods of sampling.

MBY 599. Thesis (1-6)

FACULTY

FACULTY

Sheila Anne Adams, *Associate Professor of Management,* B.S., M.B.A., University of Nevada-Reno; Ph.D., University of Washington.

Louis Henry Adcock, *Professor of Chemistry,* B.S., M.A., Duke University; Ph.D., Louisiana State University.

Michael Ulrich Affemann, *Lecturer in Psychology,* B.A., St. John's University; M.A., University of Minnesota, Antioch University: Ph.D., University of Wyoming.

Syed Shahzad Ahmad, *Assistant Professor of Political Science,* B.A., M.A., Aligarh University; Ph.D., University of Tennessee.

William Franklin Ainsley, Jr., *Professor of Geography,* A.B., M.A., University of North Carolina at Chapel Hill; M.Div., Southeastern Baptist Theological Seminary; Phh.D., University of North Carolina at Chapel Hill.

Moorad Alexanian, *Professor of Physics,* B.S., University of Rhode Island; M.S., Ph.D., Indiana University.

David Bruce Allen, *Lecturer in Physical Education,* B.S., M.S., Springfield College.

Thomas Earl Allen, *Professor of Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Walser H. Allen, *Associate Professor of History,* B.A., Moravian College; M.Div., Moravian Theological Seminary; M.A., University of North Carolina at Chapel Hill.

Ferenc Altrichter, *Associate Professor of Philosophy and Religion,* B.A., B.S., M.A., M.S., Eotvos Lorand University of Budapest; Ph.D., Hungarian Academy of Sciences.

Carlos S. Alves, *Assistant Professor of Mathematical Sciences,* B.S., M.S., Faculdade Porto, Portugal; M.A., Ph.D., Pennsylvania State University.

Arvid Asa Anderson, *Associate Professor of Marketing,* B.B.A., M.B.A., Ph.D., The University of Texas at Austin.

Elizabeth T. Anderson, *Adjunct Lecturer in Medical Technology,* B.A., University of North Carolina at Greensboro; B.S., Bowman-Gray School of Medical Technology; MT (ASCP).

John Michael Anderson, *Associate Professor of Management,* B.S., United States Naval Academy; A.B., University of North Carolina at Wilmington; M.B.A., East Carolina University; Ph.D., North Carolina State University.

David Michael Andrews, *Assistant Professor of Education,* B.A., Southern Connecticut State University; M.Ed., Ed.D., University of Maine at Orono.

James Milton Applefield, *Assistant Professor of Education,* B.A., University of North Carolina at Chapel Hill; M.A., Emory University; M.Ed., University of Georgia; Ph.D., Georgia State University.

Pauline F. Applefield, *Assistant Professor of Psychology,* B.A., Bethany College; M.S., Ph.D., Pennsylvania State University.

Robert W. Appleton, *Associate Professor of Accountancy,* B.S., Belmont College; M.B.A., Memphis State University; CPA.

Mary DeWane Axley, *Lecturer in English,* B.A., Louisiana State University; M.A., Western Illinois University.

Saul Bachner, *Professor of Education,* B.A., M.Ed., Ph.D., Wayne State University.

Ravija Badarinathi, *Assistant Professor of Management,* B.S., M.S., Allahabad University; Ph.D., University of Georgia.

Jack D. Baker, *Associate Professor of Accountancy,* B.A., University of Colorado; M.S., Ph.D., University of Missouri at Columbia; CPA.

Timothy Alan Ballard, *Assistant Professor of Biology,* B.S., Appalachian State University; Ph.D., Bowman Gray School of Medicine of Wake Forest University.

Paz Irabagon Bartolome, *Professor of Education,* B.S., E. Ed., Philippine Normal; M.Ed., Miami University; Ph.D., Ohio State University.

Donna Gregg Basch, *Adjunct Lecturer in Medical Technology,* B.S., Carson Newman College; MT (ASCP) SC, Bowman Gray School of Medical Technology.

James Rush Beeler, *Professor of French,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Sanford P. Benjamin, *Adjunct Professor of Medical Technology,* B.S.,Ohio State University; M.D., Wayne State University College of Medicine.

Kathleen Christine Berkeley, *Associate Professor of History, B.A., M.A., Ph.D., University of California, Los Angeles.*

David Roy Berman, *Assistant Professor of Mathematical Sciences,* B.A., University of Texas at Austin; M.A., University of California at Berkeley; Ph.D., University of Texas at Austin.

Bhanu Bhaskaran, *Assistant Professor of Mathematical Sciences,* B.Sc., B.L., M.Sc., University of Madras; Ph.D., Cornell University.

Walter Clark Biggs, Jr., *Professor of Biology,* B.A., East Carolina University; M.S., Texas A & M University; Ph.D., North Carolina State University.

Virginia B. Bissinger, *Adjunct Lecturer of Medical Technology,* B.S., University of North Carolina at Wilmington; MT (ASCP).

N. Jackson Blackmore, *Lecturer in Physical Education,* B.A., M.Ed., University of North Carolina at Wilmington.

Delilah Bowen Blanks, *Assistant Professor of Social Work,* A.B., Shaw University; A.B., East Carolina University; M.S.W., Ph.D., University of North Carolina at Chapel Hill.

Frank Joseph Bongiorno, *Assistant Professor of Music.,* B.M., Ithaca College; M.M., North Texas State University; graduate study, Indiana University.

Iva Davis Boslough, *Lecturer in Education & Psychology and Director of Minority Advising,* B.A., Regis College; M.S., Portland State University.

James A. Boylston, *Adjunct Professor of Medical Technology,* B.S., University of South Carolina; M.D., Duke University.

Michael Bradley, *Professor of Psychology,* B.A., M.Ed., Ed.D., University of Georgia.

Ralph W. Brauer, *Professor of Marine Physiology,* A.B., Columbia University; M.Sc., Ph.D., University of Rochester.

William Jasper Brooks, *Associate Professor of Physical Education,* A.B., Atlantic Christian College; M.A., East Carolina University.

Jeffery L. Brown, *Assistant Professor of Mathematical Sciences,* B.S., M.A., Ph.D., University of Georgia.

Robert Tindall Brown, *Professor of Psychology,* A.B., Hamilton College; Ph.D., Yale University.

Thomas P. Brown, *Assistant Professor of Mathematical Sciences,* A.B., University of North Carolina at Chapel Hill; M.A., East Carolina University.

Katherine Ely Bruce, *Assistant Professor of Psychology,* B.A., Southwestern at Memphis; M.S., M.A., Ph.D., University of Georgia.

William A. Bryan, *Professor of Education,* B.S., Florida State University; M.S., Indiana University; Ed.D., University of Wyoming.

Anne Louise Buchanan, *Lecturer and Reference Librarian,* B.S., Marian College; M.L.S., Indiana University.

Sybil K. Burgess, *Associate Professor of Chemistry,* B.S., Meredith College; Ph.D., North Carolina State University.

Thomas Joseph Burke, *Assistant Professor of Management,* A.B., Sacramento State College; M.B.A., University of Miami.

Grace M. Burton, *Professor of Education,* A.B., Annhurst College; M.A., Ph.D., University of Connecticut.

Robert H. Byington, *Professor of English and Folklore,* A.B., Pennsylvania State University; M.A., Lehigh University; Ph.D., University of Pennsylvania.

Larry E. Cable, *Assistant Professor of History,* B.A., Shimer College; M.A., Western Michigan University; Ph.D., University of Houston.

Charles L. Cahill, *Professor of Chemistry,* A.B., Oklahoma Baptist University; M.S., Ph.D., University of Oklahoma.

Lawrence Bruce Cahoon, *Associate Professor of Biology,* B.S., Washington and Lee University; Ph.D., Duke University.

Denis G. Carter, *Associate Professor of Economics,* A.B., Boston College; Ph.D., University of Florida.

Frank L. Chapman, *Lecturer in Physical Education,* B.S., M.S., Florida State University.

Irvin Garrett Clator, *Associate Professor of Physics,* B.S., M.S., Ph.D., West Virginia University.

Ileana E. Clavijo, *Assistant Professor of Biology,* B.S., Barry University; M.S., Florida Atlantic University; Ph.D., University of Puerto Rico.

William James Cleary, *Professor of Geology,* A.B., Southern Illinois University; M.A., Duke University; Ph.D., University of South Carolina.

John P. Clifford, *Associate Professor of English,* B.A., St. Francis College; M.A., Ph.D., New York University.

David E. Cockrell, *Assistant Professor of Physical Education,* B.A., M.S., University of Pennsylvania; M.S., Ph.D., University of Idaho.

Sue Ann Cody, *Assistant Professor and Head of Reference,* B.S., Ball State University; M.L.S., Indiana University.

James Glenn Collier, Jr., *Associate Professor of English,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Clarice S. Combs, *Assistant Professor of Physical Education,* B.S., University of Wisconsin-Oshkosh; M.A., Ph.D., Ohio State University.

Harry Allen Comeskey, *Assistant Professor of Finance,* B.S., United States Military Academy; M.B.A., D.B.A., University of Colorado.

Ann Louise Conner, *Associate Professor of Art,* B.A., Salem College; Special Studies in Art, Salem-Hofstra University, Asolo, Italy; M.A.C.T., M.F.A., University of North Carolina at Chapel Hill.

Walter H. Conser, Jr., *Assistant Professor of Philosophy and Religion,* B.A., University of California, Irvine; A.M., Ph.D., Brown University.

Ronald E. Copley, *Associate Professor of Finance,* B.A., M.B.A., Old Dominion University; Ph.D., University of South Carolina.

Joanne King Corbett, *Professor of English,* A.B., Coker College; M.A., Ph.D., University of Montreal.

David F. Culkin, *Associate Professor of Recreation, B.S., M.S., University of Illinois; Ph.D., University of Oregon.*

Thaddeus G. Dankel, Jr., *Professor of Mathematical Sciences,* B.S., Duke University; M.A., Ph.D., Princeton University.

Fred Blount Davenport, Jr., *Associate Professor of Business Law,* B.A., M.B.A., J.D., University of North Carolina at Chapel Hill.

Brian F. Davis, *Associate Professor of Physics,* B.S., Bowling Green State University; Ph.D., North Carolina State University.

Richard Ryder Deas, *Professor of Music,* B.F.A., University of New Mexico, B.S., M.S., Juilliard School of Music; Ed.D., Columbia University.

Jody W. Deming, *Adjunct Research Scientist in Biology,* B.A., Smith College; Ph.D., University of Maryland, College Park.

Caroline L. DeMoss, *Assistant Professor of Drama,* B.A., Greensboro College; M.F.A., University of Georgia.

Richard M. Dillaman, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.A., University of Virginia; Ph.D., University of South Carolina.

James C. Dixon, *Professor of Political Science,* A.B., M.A., Marshall University; Ph.D., Emory University.

Richard David Dixon, *Professor of Sociology,* B.A., University of Connecticut; M.A., Marshall University; Ph.D., Emory University.

James Allen Dockal, *Assistant Professor of Geology,* B.S., M.S., Iowa State University; Ph.D., University of Iowa.

Diane Marie Beaudoin Dodd, *Assistant Professor of Biology,* B.A., Agnes Scott College; M.S., M.Phil., Ph.D., Yale University.

Charles Brooks Dodson, *Professor of English,* B.A., DePauw University; M.A., Indiana University; Ph.D., University of Nebraska.

Calvin L. Doss, *Associate Professor of Education,* B.S., Berry College; M.Ed., University of Gerogia; Ph.D., University of North Carolina at Chapel Hill.

Annabel K. Downs, *Lecturer in Nursing,* B.S.N., M.S.N., University of Virginia.

Joseph B. Dudley, *Adjunct Professor of Medical Technology,* B.S., Davidson College; M.D., University of Pennsylvania.

David M. DuMond, *Adjunct Research Associate in Biology,* B.A., University of North Carolina at Chapel Hill; M.S., North Carolina State University.

Carolyn S. Dunn, *Associate Professor of Biology,* B.S., M.A., University of Louisville; Ph.D., Ohio State University.

Paul B. Eaglin, *Assistant Professor of Business Law,* B.A., The Johns Hopkins University; J.D., Duke University.

Rodney S. Earle, *Assistant Professor of Education,* Dip. T., Kelvin Grove Teachers College; B.A., M.Ed., Brigham Young University; Ph.D., Indiana University.

Charles L. Earney, *Assistant Professor of Accountancy,* B.B.A., M.B.A., University of Wisconsin-Madison; CPA.

Fara Elikai, *Assistant Professor of Accountancy,* B.S., The Institute of Advanced Accounting-Tehran; M.S., University of Kansas; Ph.D., University of Oklahoma.

Marc R. Ellington, *Lecturer in Physical Education,* B.S., M.Ed., Springfield College.

Norman E. Ellis, *Associate Professor of Education,* B.S., M.A., Ball State University; Ph.D., University of North Carolina at Chapel Hill.

Patricia Carol Ellis, *Assistant Professor of English,* B.A., M.A., Ph.D., University of Georgia.

Richard A. Engdahl, *Assistant Professor of Management,* B.S., M.B.A., University of Michigan; Ph.D., University of Washington.

C. Steven Errante, *Assistant Professor of Music,* B.M., M.A., University of Michigan; D.M.A., The Juilliard School.

William Lester Etheridge, *Assistant Professor of Mathematical Sciences,* B.S., M.S., University of Illinois; Ph.D., Purdue University.

John F. Evans, *Lecturer in English,* B.S. Ed., Dr. Martin Luther College; M.A.T., Saginaw Valley State College; M.A., Breadloaf School of English.

Steven H. Everhart, *Adjunct Associate Professor of Biology,* B.S., University of North Carolina at Wilmington; M.S., Ph.D., North Carolina State University.

Claude Herman Farrell, III, *Professor of Economics,* B.S., M.E., Ph.D., North Carolina State University.

Gary L. Faulkner, *Professor of Sociology,* B.A., M.A., Ball State University; Ph.D., University of Georgia.

Carole K. Fink, *Professor of History,* B.A., Bard College; M.A., Ph.D., Yale University.

Lenora W. Flynn, *Adjunct Assistant Professor of Medical Technology,* B.A., M.Ed., University of North Carolina at Greensboro.

Charles Fort, *Associate Professor of English,* B.A., Siena Heights College; M.F.A., Bowling Green State University.

Robin (Kris) Frasure, *Lecturer in Military Science,* B.S., Paine College.

Dargan Frierson, Jr., *Associate Professor of Mathematical Sciences,* B.A., M.A., University of North Carolina at Greensboro; Ph.D., University of Arizona.

Charles McGhee Fugler, *Professor of Biology,* B.S., Tulane University; M.S., Louisiana State University; Ph.D., Auburn University.

Donald E. Furst, *Assistant Professor of Art,* B.A., M.A., M.F.A., University of Iowa.

J. Mark Galizio, *Professor of Psychology,* B.A., Kent State University; M.S., Ph.D., University of Wisconsin-Milwaukee.

John M. Garris, *Assistant Professor of Management,* B.A., University of North Carolina at Chapel Hill; M.S., Ph.D., Clemson University.

Candace C. Gauthier, *Assistant Professor of Philosophy,* B.A., State University of New York, Oswego; M.S., State University of New York, Potsdam; M.A., Ph.D., The University of North Carolina at Chapel Hill.

Robert Yesudian George, *Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.Sc., Madras Christian College; M.Sc., Presidency College; Ph.D., University of Madras.

Melvin Lee Gibson, *Lecturer in Physical Education,* B.S., M.A., Western Carolina University.

John E. Gillette, *Lecturer in Military Science,* B.S., M.S., California Polytechnic State University.

Nancy Gilliland, *Assistant Professor of Nursing,* B.S.N., University of North Carolina at Chapel Hill; M.N., Emory University.

Gerry Gingrich, *Lecturer in Management,* B.S., University of North Carolina at Chapel Hill; M.S., Ph.D., University of Maryland.

Nancy J. Gladwell, *Assistant Professor of Recreation,* B.S.R., M.S.P.E., West Virginia University; Re.D., Indiana University.

Christopher Gould, *Associate Professor of English,* B.A., University of Virginia; M.A., Ph.D., University of South Carolina.

Paul Allen Gray, Jr., *Assistant Professor of Nursing and Director RN ACCESS Program;* Diploma in Nursing, Mercy Hospital School of Nursing; B.S.N., North Carolina Central University; A.B., M.S.N., Ph.D., University of North Carolina at Chapel Hill.

Barbara Ann Greim, *Associate Professor of Mathematical Sciences,* B.S., Ursinus College; Ph.D., University of North Carolina at Chapel Hill.

Kenneth Rufus Gurganus, *Assistant Professor of Mathematical Sciences,* B.S., M.S., Ph.D., University of North Carolina at Chapel Hill.

Bobby Lee Guthrie, *Lecturer in Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill.

Courtney T. Hackney, *Professor of Biology,* B.S., University of South Alabama; M.S., Emory University; Ph.D., Mississippi State University.

Jack Charles Hall, *Assistant Professor of Geology,* B.S., Grand Valley State College; M.S., University of North Carolina at Chapel Hill; Ph.D., The Ohio State University.

William Woodward Hall, Jr., *Associate Professor of Economics,* B.A., Presbyterian College; M.S., Ph.D., Clemson University.

Arlene Andersen Hanerfeld, *Assistant Professor and Reference Librarian,* B.S. University of North Carolina at Greensboro; M.S.L.S. University of North Carolina at Chapel Hill.

Roy Eugene Harkin, *Professor of Education,* A.B., M.A., Ball State University; Ph.D., Claremont Graduate School.

Stephen Coale Harper, *Professor of Management,* B.B.A., University of New Mexico; M.B.A., University of Arizona; Ph.D., Arizona State University.

Mark R. Harrington, *Lecturer in Speech Communication,* B.A., University of Mississippi; M.A., University of North Carolina at Chapel Hill.

William Burleigh Harris, *Professor of Geology,* B.S., Campbell College; M.S., West Virginia University; Ph.D., University of North Carolina at Chapel Hill.

James D. Harriss, Jr., *Lecturer in Finance,* B.B.A., M.B.A., Sam Houston State University; D.B.A., Mississippi State University.

Paul Graham Hatcher, *Associate Professor of Health and Physical Education,* B.A., Belmont College; M.S., Western Kentucky University; Ph.D., George Peabody College for Teachers.

Andrew E. Hayes, *Associate Professor of Education,* B.S., M.A., Louisiana Polytechnic Institute; Ed.D., University of Georgia.

Hathia A. Hayes, *Associate Professor of Education,* B.S., M.S., Louisiana Polytechnic Institute; Ed.D., University of Georgia.

Timothy W. Haywood, *Professor of Physics,* B.S., University of Georgia; Ph.D., University of North Carolina at Chapel Hill.

Robert Taylor Herbst, *Professor of Mathematical Sciences,* B.A., Duke University; M.S., North Carolina State University; Ph.D., Duke University.

Hildelisa Caridad Hernandez, *Associate Professor of Physics,* Sc.D., University of Havana.

Daniel J. Herron, *Assistant Professor of Business Law,* B.A., Miami University (Ohio); J.D. Case Western Reserve University.

Joe Eugene Hickman, *Associate Professor of Music,* B.M., West Virginia University; M.M., D.M., Indiana University.

Karen L. Hicks, *Adjunct Assistant Professor of Biology,* B.S., Grand Valley State College; Ph.D., Cornell University.

Robert Price Higgins, *Adjunct Research Professor in Biological Oceanography,* B.A., M.A., University of Colorado; Ph.D., Duke University.

Roger Post Hill, *Professor of Economics and Finance,* B.S., North Carolina State University; M.S., Oklahoma State University; Ph.D., Michigan State University; post-doctoral study, University of North Carolina at Chapel Hill.

Charlotte B. Hoelzel, *Adjunct Assistant Professor of Nursing,* B.S., Vanderbilt University; M.S., Medical College of Virginia.

Nancy Lucinda Hollifield, *Associate Professor of Physical Education,* B.A., Furman University; M.Ed., University of Georgia; Ph.D., Louisiana State University.

Earl D. Honeycutt, *Assistant Professor of Marketing,* B.S., M.B.A., Appalachian State University; M.S., Chapman College; Ph.D., University of Georgia.

Larry R. Honeycutt, *Lecturer in Physical Education,* B.A., University of North Carolina at Wilmington; M.A.T., University of North Carolina at Chapel Hill.

Laura A. Honeycutt, *Lecturer in Marketing,* B.S., Bucknell University; M.B.A., Appalachian State University.

Frederick M. Hornack, *Professor of Chemistry,* B.S., Lowell Technological Institute; Ph.D., Florida State University.

Paul Edward Hosier, *Professor of Biology,* B.S., New Paltz State University (New York); M.A., University of Massachusetts; Ph.D., Duke University.

Jon Hee Huer, *Assistant Professor of Sociology,* B.A., California State University at Los Angeles; M.A., Ph.D., University of California, Los Angeles.

Eugene William Huguelet, *Associate Professor and Director of Library Services,* B.A., University of North Carolina at Chapel Hill; M.A., East Carolina University; M.Ln., Emory University.

Alan W. Hulbert, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.S., University of Lowell; Ph.D., University of New Hampshire.

Harold G. Hulon, *Professor of Education,* A.B., M.Ed., Ph.D., University of North Carolina at Chapel Hill.

John R. Huntsman, *Assistant Professor of Geology,* B.S., Mount Union College; M.A., Ph.D., Bryn Mawr College.

LuEllen Huntley, *Lecturer in English,* B.A., North Carolina State University; M. Litt., Breadloaf School of English.

Lee Anderson Jackson, Jr., *Professor of Psychology,* B.A., Hampden-Sydney College; M.A., Ph.D., University of Florida.

Louise Jackson, *Assistant Professor and Head of Acquisitions,* B.A., Winthrop College; M.Ln., Emory University.

Paul Emil Jambor, *Professor of Mathematical Sciences,* M.A., Charles University, Prague; M.A., Columbia University; Ph.D., Charles University, Prague.

D. Ronald Johnson, *Assistant Professor and Head of Circulation/Online Systems Coordinator,* A.B., East Carolina University; M.L.S., George Peabody College.

James D. Johnson, *Assistant Professor of Psychology,* B.A., North Carolina Agricultural & Technical State University; Ph.D., Indiana University.

Hunter Library UNC-W

W. Lee Johnston, *Associate Professor of Political Science,* B.A., University of North Carolina at Chapel Hill; M.S., Ph.D., University of Maryland.

William Jay Johnston, *Assistant Professor of Education,* B.S., Midwestern University; M.A., Memphis State University; Ph.D., University of North Carolina at Chapel Hill.

Lloyd P. Jones, *Assistant Professor of Political Science,* B.A., Southern Illinois University; M.S., Northeastern University; Ph.D., Northern Illinois University.

Noel K. Jones, *Associate Professor of Education,* B.A., Harvard College; M.A., Stanford University; Ph.D., Cornell University.

Rebecca B. Jones, *Lecturer in Chemistry,* B.A., Agnes Scott College; M.S., Brown University.

S. Bart Jones, *Assistant Professor of Chemistry,* B.S., Davidson College; Ph.D., West Virginia University.

Virginia P. Jones, *Lecturer in English,* B.A., Rutgers University; M.A.T., University of North Carolina at Chapel Hill.

Anne W. Joslin, *Assistant Professor of Education,* B.S., University of North Carolina at Chapel Hill; M.A., University of Virginia; Ph.D., University of North Carolina at Chapel Hill.

Matthew T. Kambule, *Assistant Professor of Mathematical Sciences,* B.Sc., University of South Africa; B.Sc., University of the North-So. Africa; M.Sc., University of South Africa; Ph.D., University of Massachusetts (Amherst).

Donald F. Kapraun, *Professor of Biology,* B.S., Eastern Illinois University; Ph.D., University of Texas at Austin.

John K. Karlof, *Professor of Mathematical Sciences,* B.A., State University of New York at Oswego; M.A., Ph.D., University of Colorado; M.S., State University of New York at Stonybrook.

Norman R. Kaylor, *Professor of Accountancy,* B.S., Middle Tennessee State University; M.B.A., Georgia State University; Ph.D., University of Mississippi.

Robert J. Keating, *Assistant Professor of Management,* B.S., M.B.A., Southern Illinois University; D.B.A., Kent State University.

Anne S. Kendrick, *Assistant Professor of Biology,* B.A., Longwood College; B.S., M.S., Medical College of Virginia; MT (ASCP).

Rudolf Hans Kiefer, *Assistant Professor of Geography,* B.A., M.A., University of Heidelberg, Germany; Ph.D., University of Georgia.

Bruce L. Kinzer, *Associate Professor of History,* B.A., Eastern Michigan University; M.A., University of Michigan; Ph.D., University of Toronto.

Mary Lawrence Kirk, *Lecturer and Special Services Librarian,* B.S., University of Tennessee; M.L.S., University of North Carolina at Greensboro.

Joseph M. Kishton, *Associate Professor of Psychology,* B.S., M.A., Ph.D., Ohio State University.

Kathleen Helena Kowal, *Professor of Psychology,* B.S., University of Maryland; M.A., Ph.D., Columbia University.

Barbara Ellen LaGodna, *Lecturer and Head of Cataloging,* B.A., West Virginia University; M.S.L.S., University of Kentucky.

Randy L. LaGrange, *Associate Professor of Criminal Justice,* B.S., M.A., University of Toledo; Ph.D., Rutgers University.

Brian A. Lakey, *Assistant Professor of Psychology,* B.A., Arizona State University; Ph.D., Indiana University.

Caryl Sue Lamb, *Associate Professor of Psychology,* B.A., M.S.W., University of North Carolina at Chapel Hill; Ph.D., University of Iowa.

Calvin L. Lane, *Lecturer in Physical Education,* A.B., M.Ed., University of North Carolina at Chapel Hill.

James A. Lanier, III, *Adjunct Associate Professor of Biology,* B.A., University of Virginia; M.A., Ph.D., College of William and Mary.

Louis J. LaNunziata, Jr., *Associate Professor of Education,* B.S., East Stroudsburg State College; M.Ed., Bloomsburg State College; Ph.D., The Ohio State University.

Pierre-Jean G. Lapaire, *Assistant Professor of French,* B.A., M.A., University of Perpignan, France; M.A., Ph.D., University of North Carolina at Chapel Hill.

Richard A. Laws, *Assistant Professor of Geology,* B.A., University of North Carolina at Wilmington; M.A., University of California, Berkeley; Ph.D., University of California, Berkeley.

Luther Drew Lawson, *Associate Professor of Economics,* B.S., M.S., Indiana State University; Ph.D., University of Tennessee.

Michael H. Leaken, *Adjunct Professor of Medical Technology,* B.A., Loyola University; M.D., University of Maryland.

Stephen D. LeQuire, *Associate Professor of Art,* B.A., M.F.A., East Tennessee State University.

Patricia Barker Lerch, *Associate Professor of Anthropology,* B.A., Cleveland State University; M.A., Ph.D., Ohio State University.

Diane E. Levy, *Associate Professor of Sociology,* A.B., M.A., Ph.D., Temple University.

Jack B. Levy, *Will S. DeLoach Professor of Chemistry,* A.B., Duke University; M.S., Ph.D., North Carolina State University.

Charles A. Lewis, *Professor of Recreation,* B.S., New York State Maritime College; M.S., Hofstra University; M.A., C. W. Post College; Ph.D., New York University.

Judith Bledsoe Lewis, *Assistant Professor of Physical Education,* B.S., East Carolina University; M.S., University of North Carolina at Chapel Hill.

Ann R. Liebermann, *Assistant Professor of Nursing,* B.S.N., Illinois Wesleyan University; M.S.N., Indiana University.

David Gregory Lindquist, *Professor of Biology,* B.A., University of California-Los Angeles; M.A., California State University-Hayward; Ph.D., University of Arizona.

Ann Lockledge, *Assistant Professor of Education,* B.A., Pomona College; B.F.T., American Graduate School of International Management; M.S.Ed., Hofstra University; Ph.D., Texas A & M University.

Thomas Coriell Loftfield, *Associate Professor of Anthroplogy,* B.A., College of William and Mary; M.A., Ph.D., University of North Carolina at Chapel Hill.

Richard C. Longo, *Lecturer in Military Science,* B.A., Furman University.

Jane M. Lowe, *Lecturer in Nursing,* B.S. in Nursing, University of North Carolina at Chapel Hill.

William F. Lowe, *Assistant Professor of German,* A.B., M.A., University of North Carolina at Chapel Hill.

Roger Coyle Lowery, *Associate Professor of Political Science,* B.A., M.A., Southern Illinois University; Ph.D., Washington University (St. Louis).

Gabriel G. Lugo, *Associate Professor of Mathematical Sciences,* B.A., M.A., Ph.D., University of California, Berkeley.

Cynthia S. Luke, *Adjunct Assistant Professor of Nursing,* B.S.N., University of Michigan, M.S., Boston University.

Carl Victor Lundeen, *Associate Professor of Biology,* A.B., University of North Carolina at Chapel Hill; Ph.D., Rockefeller University.

Thomas R. Lupton, *Assistant Professor of Mathematical Sciences,* B.S., M.A., East Carolina University; graduate study, Texas A & M University.

Thomas G. MacLennan, *Associate Professor of English,* B.A., M.A., State University College at Buffalo; Ph.D., State University of New York at Buffalo.

Robert Dale McCall, *Professor of Anthropology and Research Associate at the Institute for Marine Biomedical Research* B.S., M.S., Florida State University; Ph.D., Case Western Reserve University.

Michael B. McColl, *Lecturer in English,* B.A., University of Michigan; M.A., Hollins College, M.F.A., Bowling Green State University.

James G. McCormick, *Adjunct Professor of Physiology,* B.S., Bucknell University; Ph.D., Princeton University.

Ralph C. McCoy, *Adjunct Professor of Medical Technology,* B.A., M.D., Emory University.

Anne Bowden McCrary, *Professor of Biology,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Kathy E. McDaniel, *Lecturer in Physical Education,* B.S., University of North Carolina at Greensboro, M.A., Appalachian State University.

Agnes McDonald, *Lecturer in English,* B.A., M.A., University of Missouri at Columbia.

James R. McGee, *Adjunct Professor of Medical Technology,* B.S., Florida Southern College; M.T. (ASCP)

James Kevin McGowan, *Professor of Philosophy and Religion,* A.B., Mary Immaculate College; Ph.L., The Catholic University of America; Ph.D., University of Louvain.

Phillip McGuire, *Professor of History,* B.S., Bishop College; M.A., Southern Methodist University; Ph.D., Howard University.

Diane L. McKinstry, *Lecturer in Psychology,* B.S., Fordham University; Ph.D., University of Minnesota.

Harry C. McLamb, *Assistant Professor of Music,* B.M.E., East Carolina University; M.M., Southern Illinois University.

Melton A. McLaurin, *Professor of History,* B.S., M.A., East Carolina University; Ph.D., University of South Carolina.

Sandra C. McLaurin, *Associate Professor of Mathematical Sciences,* B.S., M.A., East Carolina University; Ph.D., University of South Carolina.

Stephen J. McNamee, *Associate Professor of Sociology,* A.B., Rutgers University, Camden; A.M., Ph.D., University of Illinois, Urbana-Champaign.

Thomas C. Macie, *Assistant Professor of Drama,* B.A. SUNY College at Fredonia; M.F.A., Wayne State University.

Helen Jones Majette, *Assistant Professor of Nursing,* B.S.N., University of North Carolina; M.A., Columbia University.

John J. Manock, *Professor of Chemistry,* B.S., Washington and Jefferson College; Ph.D., Ohio University.

Dorothy P. Marshall, *Lecturer in Management,* B.S., East Carolina University; graduate study, George Peabody College.

Ned Harold Martin, *Professor of Chemistry,* A.B., Denison University; Ph.D., Duke University.

Ronald S. Martin, *Assistant Professor and Director of ROTC,* B.A., San Jose State University; M.S., University of Southern California.

Sherrill Virginia Martin, *Associate Professor of Music,* B.M., Samford University; M.M., University of Alabama; Ph.D., University of North Carolina at Chapel Hill.

John A. Marts, *Professor of Accountancy,* B.S., University of North Carolina at Charlotte; M.A.T., Ph.D., University of South Carolina; CPA.

Eleanor K. Maxwell, *Assistant Professor of Sociology,* B.S., M.A., Temple University; Ph.D., University of California, San Francisco.

Nancy S. Maylath, *Assistant Professor of Health,* B.S., Valparaiso University; M.S., M.P.H., H.S.D., Indiana University.

Cynthia J. Meekins, *Adjunct Research Associate in Biology,* B.S., East Carolina University; M.S., University of North Carolina at Wilmington.

James Joseph Megivern, *Professor of Philosophy and Religion,* B.A., M.A., Mary Immaculate College; S.T.L., Th.D., University of Fribourg; S.S.L., Biblical Institute, Rome.

James Francis Merritt, *Associate Professor of Biology,* B.S., M.A., East Carolina University; Ph.D., North Carolina State University.

Ellen Pletcher Metzer, *Assistant Professor of Geology,* B.S., University of New Orleans; M.S., Ph.D., Syracuse University.

Celeste S. Millen, *Lecturer and Reference Librarian,* B.A., University of Tennessee; M.L.S., George Peabody College, Vanderbilt University.

David Keith Miller, *Professor of Physical Education,* B.S., Wake Forest University; M.Ed., University of North Carolina at Chapel Hill; Ph.D., Florida State University.

Robert Kent Miller, Jr., *Associate Professor of Sociology,* A.B., Franklin and Marshall College; MA., Ph.D., Temple University.

Joel J. Mintzes, *Professor of Biology,* B.S., M.S., University of Illinois, Chicago; Ph.D., Northwestern University.

John E. Morgan, Jr., *Assistant Professor of Economics,* B.S.,The College of William and Mary; M.S.I.M., Georgia Institute of Technology; Ph.D., The University of Georgia.

Joann McFerran Mount, *Assistant Professor of Spanish,* B.A., University of Arkansas; M.A., Ph.D., University of Kentucky.

Richard Terry Mount, *Associate Professor of Spanish,* B.A., Vanderbilt University; M.A., University of North Carolina at Chapel Hill; Ph.D., University of Kentucky.

Richard H. Mullendore, *Lecturer in Education,* B.A., Bradley University; M.S., Southern Illinois University; Ph.D., Michigan State University.

John W. Myers, *Assistant Professor of Art,* B.A., Hobart College; M.A., University of Wisconsin, Madison; Ph.D., University of Delaware.

Lewis E. Nance, *Professor of Chemistry,* B.S., M.S., Clemson University; Ph.D., University of the Pacific.

James Harold Nelson, *Associate Professor of Mathematical Sciences,* B.E., M.S., Ph.D., Vanderbilt University.

Darwin R. Newton, *Professor of Psychology,* B.A., Chadron State College; M.S., Ed.D., University of Northern Colorado.

Paul T. Nkansah, *Assistant Professor of Management,* B.S., University of Cape Coast (Ghana); M.S., University of Ghana; M.S., Ph.D., Iowa State University.

Daniel W. Noland, *Visiting Assistant Professor of English,* B.A., University of North Carolina at Chapel Hill; M.A., Furman University; Ph.D., University of Texas at Austin.

Hana S. Noor Al-Deen, *Assistant Professor of Speech Communication,* B.A., Al-Mustansiriyah University; M.A., California State University-Sacramento; Ph.D., State University of New York-Buffalo.

Fletcher Ragland Norris, *Professor of Mathematical Sciences,* B.A., Vanderbilt University; M.A., Ph.D., George Peabody College; post doctoral study, Florida State University.

Michael L. O'Connor, *Adjunct Professor of Medical Technology,* B.S. Rockhurst College; M.S., University of Wisconsin; M.D., University of Kansas.

J. Timothy O'Meara, *Assistant Professor of Anthropology,* B.A., Stanford University; M.A., University of Hawaii, Manoa; Ph.D., University of California, Santa Barbara.

Edward Alexander Olszewski, Jr., *Professor of Physics,* B.S., Worchester Polytechnic Institute; Ph.D., University of North Carolina at Chapel Hill.

William H. Overman, Jr., *Professor of Psychology and Adjunct Professor of Biology,* B.A., Wake Forest University; M.S., Ph.D.,The Pennsylvania State University.

David Emerson Padgett, *Professor of Biology,* A.B., Duke University; M.S., Ph.D., Ohio State University.

Hans Paerl, *Adjunct Professor of Marine Science,* B.S., Ph.D., University of California, Davis.

Margaret Holt Parish, *Assistant Professor of English,* B.A., Elmira College; M.L.S., Simmons College; Ph.D., Michigan State University.

Vickie B. Parker, *Lecturer in Recreation,* B.A., University of North Carolina at Wilmington, M.A., University of North Carolina at Chapel Hill.

James F. Parnell, *Professor of Biology,* B.S., M.S., Ph.D., North Carolina State University.

Virginia C. Payne, *Assistant Professor of Nursing,* B.S.N., M.S.H.E., M.S.N., East Carolina University.

Elizabeth A. Pearsall, *Assistant Professor of English,* A.B., University of North Carolina at Greensboro; M.A., University of North Carolina at Chapel Hill.

Carlos Alberto Perez, *Assistant Professor of Spanish,* A.B., Wake Forest University; M.A., Ph.D., University of North Carolina at Chapel Hill.

John R. Perrachione, *Assistant Professor of Marketing,* B.A., Northwestern University; M.A., Ph.D., University of South Florida.

Jeffery L. Phillips, *Assistant Professor of Psychology,* B.A., State University of New York at Binghamton; M.A., Ph.D., Southern Illinois University at Carbondale.

Carol Ann Pilgrim, *Assistant Professor of Psychology,* B.S., Virginia Polytechnic Institute and State University; M.S., Ph.D., University of Florida.

Cathy B. Pittman, *Instructor in Nursing,* B.S.N., University of Pittsburgh: M.S.N., East Carolina University.

Daniel Belk Plyler, *Professor of Biology,* A.B., Pfeiffer College; M.A., Ph.D., University of North Carolina at Chapel Hill.

Sylvia Knopp Polgar, *Associate Professor of Sociology,* B.S., M.A., Columbia University; MSW, Ph.D., University of North Carolina at Chapel Hill.

Antonio E. Puente, *Associate Professor of Psychology,* B.A., University of Florida; Ph.D., University of Georgia.

Marcee M. Raab, *Associate Professor of Education,* B.S., Syracuse University; M.Ed., American University; Ph.D., University of South Florida.

Duncan P. Randall, *Professor of Geography,* A.B., University of Georgia; M.A., Northwestern University; Ph.D., University of North Carolina at Chapel Hill.

James H. Reeves, *Associate Professor of Chemistry,* B.A., Ph.D., Northeastern University.

J. Paul Reynolds, *Adjunct Professor of Biology,* B.S., Guilford College; M.S., University of North Carolina at Chapel Hill; Ph.D., The Johns Hopkins University.

Sam Leslie Robinson, *Assistant Professor of Mathematical Sciences,* B.S., The University of North Carolina at Charlotte; Ph.D., Virginia Polytechnic Institute and State University.

Robert D. Roer, *Associate Professor of Biology and Research Associate at the Institute for Marine Biomedical Research,* B.S., Brown University; Ph.D., Duke University.

W. Terry Rogers, *Associate Professor of Drama and Speech,* B.A., University of Florida; M.S., M.A., Ph.D., Florida State University.

Fred C. Rohde, *Adjunct Research Associate in Biology,* B.S., Iowa State University; M.A., University of North Carolina at Chapel Hill.

Lloyd Earl Rohler, Jr., *Assistant Professor of Speech Communication,* B.A., M.A., Ph.D, Indiana University.

Richard Allan Roscher, *Assistant Professor of Accountancy,* B.B.A., University of Notre Dame; M.B.A., University of Denver; CPA.

Marlene M. Rosenkoetter, *Professor of Nursing,* Diploma in Nursing, Barnes Hospital School of Nursing; B.A., M.Ed., University of Missouri; M.S.N., East Carolina University; Ph.D., St. Louis University.

Gerald S. Rosselot, *Associate Professor of English,* B.S., Wilmington College (Ohio); M.A., DePauw University; Ph.D., University of North Carolina at Chapel Hill.

David Byron Roye, *Professor of Biology,* B.S., College of William and Mary; M.S., Ph.D., University of Florida.

Claire Rozier, *Assistant Professor of Music,* B.A., Goucher College; M.M., University of Cincinnati; D.M.A., Eastman School of Music.

James Carmen Sabella, *Professor of Anthropology,* B.S., State University of New York, Cortland; M.A., Ph.D., Cornell University.

Ibrahim S. Sadek, *Associate Professor of Mathematical Sciences,* B.Sc., M.Sc., Middle East Technical University; Ph.D., University of California at Santa Barbara.

Shiva Kumar Saksena, *Assistant Professor of Mathematical Sciences,* B.S., M.S., Agra University, India; M. Stat., Indian Statistical Institute; Ph.D., Louisana Tech University.

Richard J. Sanders, *Assistant Professor of Psychology,* B.A., University of California at Santa Barbara; M.Phil., Ph.D., Columbia University.

Rebecca Shields Sawyer, *Assistant Professor of Accountancy,* B.S., North Carolina State University; M.B.A., Duquesne University; CPA.

Yousry Sayed, *Associate Professor of Chemistry,* B.S., M.S., Cairo University; Ph.D., University of Minnesota.

John H. Scalf, Jr., *Professor of Sociology,* B.A., M.A., Stetson University; M.Div., Southeastern Baptist Theological Seminary; Ph.D., University of Kentucky.

Mark E. Scalf, *Lecturer in Physical Education,* B.A., University of North Carolina at Wilmington; M.A., University of North Carolina at Chapel Hill.

Walter Thomas Schmid, *Associate Professor of Philosophy and Religion,* B.A., M.Phil., Ph.D., Yale University.

William Schneider, *Professor of History,* B.A., Stanford University; M.A., Duquesne University; Ph.D., University of Pennsylvania.

Frank J. Schwartz, *Adjunct Professor of Biology,* B.S., M.S., Ph.D., University of Pittsburg.

Lee Schweninger, *Assistant Professor of English,* B.A., University of Colorado; M.A., University of Connecticut at Storrs; Ph.D., University of North Carolina at Chapel Hill.

David G. Seiple, *Lecturer in English,* B.S., Thiel College; M.A., Edinboro State College; Ed.D., East Texas State University.

Jo Ann M. Seiple, *Associate Professor of English,* B.S., M.A., Ed.D., East Texas State University.

Thomas Howard Shafer, *Assistant Professor of Biology,* B.S., Duke University; M.S., Ph.D., Ohio State University.

Susie E. Sheffield, *Assistant Professor of Accountancy,* B.B.A., University of Mississippi; M.S., Appalachian State University; CPA.

Steven J. Sher, *Assistant Professor of English,* B.A., City College of New York; M.A., University of Iowa; M.F.A., Brooklyn College.

Earl Sheridan, *Associate Professor of Political Science,* B.A., Appalachian State University; M.A., Ph.D., University of Tennessee.

Debbie Sherman, *Lecturer in Physical Education,* B.S., University of North Carolina at Greensboro, M.S. Ed., James Madison University.

Lee M. Sherman, *Associate Professor of Management,* B.S., University of Maryland; M.B.A., American University; D.B.A., George Washington University.

David R. Shevach, *Assistant Professor of Social Work,* B.A., Harvard College; MSW, University of Iowa; M.A., Ph.D., University of California at San Diego.

Gerald H. Shinn, *Professor of Philosophy and Religion,* A.B., M.Th., Ph.D., Duke University. Danforth Associate.

David J. Sieren, *Professor of Biology,* B.A., Northland College; M.S., Ph.D., University of Illinois.

Henry Pate Singletary, *Adjunct Professor of Medical Technology,* B.S., M.D., Northwestern University.

Ronald K. Sizemore, *Associate Professor of Biology,* B.S., Wake Forest University; M.S., University of South Carolina; Ph.D., University of Maryland.

Douglas D. Smith, *Professor of Mathematical Sciences,* B.S., M.A., University of Illinois; Ph.D., Pennsylvania State University.

Harry F. Smith, *Visiting Professor of Mathematical Sciences,* B.S., M.A., Ph.D., Columbia University.

Julie A. Smith, *Lecturer in Nursing,* B.S.N., University of North Carolina at Chapel Hill, M.S., University of Pennsylvania.

Sister Mary Matthew Snow, *Adjunct Lecturer in Medical Technology,* B.A., University of Maine; M.A.T., University of North Carolina at Chapel Hill; MT (ASCP).

Kenneth W. Spackman, *Associate Professor of Mathematical Sciences,* B.S., Pennsylvania State University; M.S., Ph.D., University of Colorado.

Jackson Gillen Sparks, *Professor of French,* A.B., M.A., Ph.D., University of North Carolina at Chapel Hill.

Dennis J. Sporre, *Associate Professor of Drama,* B.A., Central Michigan University; M.A., University of Iowa.

Michael Spyrou, *Assistant Professor of Geography,* B.A., Cyprus College; M.A., Ph.D., University of Oregon.

Diane Lee Stephens, *Assistant Professor of Education,* B.S., SUC Geneseo, Geneseo, NY; M.S., Nazareth College, Rochester, NY; Ph.D., Indiana University, Bloomington, Indiana.

Inge Bjerre Stites, *Lecturer in French and German,* Studentereksamen, Lyngby Statsskole; graduate study, Universite de Strasbourg.

John Lemacks Stokes, III, *Professor of English,* A.B., Pfeiffer College; B.D., Emory University; Ph.D., Drew University.

Doretha McKnight Stone, *Assistant Professor of Nursing,* B.S.N., Winston-Salem State University; M.S.N., University of North Carolina at Greensboro.

Sally Sullivan, *Assistant Professor of English,* B.A., M.A., Ph.D., University of North Carolina at Greensboro.

Michael Supancic, *Assistant Professor of Criminal Justice,* B.A., University of Texas at Austin; M.A., University of California, Davis; Ph.D., University of Texas at Austin.

Doug W. Swink, *Associate Professor of Drama,* B.S., Davidson College; M.A., East Carolina University; graduate study, University of North Carolina at Chapel Hill.

Carole Ellsworth Tallant, *Associate Professor of Communication,* A.B., M.A., University of North Carolina at Chapel Hill; Ph.D., Louisiana State University.

Lana D. Taylor, *Lecturer and Reference Librarian,* B.A., University of North Carolina at Wilmington; M.L.I.S., North Carolina Central University.

Paul A. Thayer, *Professor of Geology,* B.A., Rutgers University; Ph.D., University of North Carolina at Chapel Hill.

Terry Theodore, *Professor of Drama,* B.A., Wayne State University; M.A., University of Southern California; Ph.D., University of Michigan.

Carol Chase Thomas, *Associate Professor of Education,* B.A., University of Kentucky; M.Ed., The Citadel; Ed.D., University of Kentucky.

Robert Brent Toplin, *Professor of History,* B.S., Penn State University; M.A., Ph.D, Rutgers University.

Frank Patrick Trimble, *Lecturer in Speech Communicaton,* B.A., M.A., Southern Illinois University.

Jack Thorne Turner, *Professor of Marketing,* B.S., M.A., West Virginia University; D.B.A., Indiana University.

Patricia A. Turrisi, *Assistant Professor of Philosophy,* B.A., Queen's College City University of NY; M.A., Ph.D., The Pennsylvania State University.

Larry Winfield Usilton, III, *Associate Professor of History,* B.A., M.A., Ph.D., Mississippi State University.

Richard C. Veit, *Professor of English,* B.A., University of Notre Dame; M.A., Ph.D., University of Iowa.

Gilbert L. Voss, *Adjunct Research Professor in Biological Oceanography,* B.S., M.S., University of Miami; Ph.D., George Washington University.

William Morgan Wadman, *Associate Professor of Economics,* B.A., M.S., Brigham Young University; Ph.D., Claremont Graduate School.

William H. Wagoner, *Professor of Education and Lecturer in Political Science,* A.B., Wake Forest University; M.A., East Carolina University; Ph.D., University of North Carolina at Chapel Hill.

John Lewis Walker, III, *Associate Professor of English,* A.B., University of Virginia; M.A., University of California-Berkeley; Ph.D., University of Virginia.

Randall Library UNCW

Michael D. Walsh, *Assistant Professor of Economics,* B.A., M.A., Clemson University; Ph.D., University of Georgia.

Charles Richard Ward, *Associate Professor of Chemistry,* B.S., Manchester College; M.S., Ph.D., Purdue University.

Mary M. Wasson, *Lecturer in English,* A.B., University of North Carolina at Chapel Hill; M.A., University of North Carolina at Greensboro.

Alan Douglas Watson, *Professor of History,* B.A., Duke University; M.A., East Carolina University; Ph.D., University of South Carolina.

Barbara F. Waxman, *Associate Professor of English,* B.A., Douglass College, Rutgers University; M.A., City College of New York; Ph.D., City University of New York.

William David Webster, *Assistant Professor of Biology,* B.S., University of North Carolina at Wilmington; M.S., Michigan State University; Ph.D., Texas Tech University.

Steven Michael Weiss, *Associate Professor of Speech Communication,* B.A., M.A., Ph.D., Temple University.

Michael D. Wentworth, *Associate Professor of English,* B.A., University of Kansas; M.A., Eastern Michigan University; Ph.D., Bowling Green State University.

Charles W. West, Jr., *Associate Professor of Management,* B.E.E., M.B.A., Cornell University; Ph.D., The University of Louisville.

Kenneth L. Whipkey, *Associate Professor of Mathematical Sciences,* A.B., M.A., Kent State University; M.S., University of Evansville; Ph.D., Case-Western Reserve University.

Joan D. Willey, *Professor of Chemistry,* B.S., Duke University; Ph.D., Dalhousie University.

John Taylor Williams, Jr., *Professor of Psychology,* B.A., University of Texas at Arlington; M.A., Ph.D., University of Florida.

Cecil L. Willis, *Professor of Criminal Justice,* B.S., East Tennessee University; M.S., East Carolina University; Ph.D., Virginia Polytechnic Institute and State University.

Joe B. Wilson, Jr., *Assistant Professor of Philosophy and Religion,* B.A., M.A., University of Wisconsin; Ph.D., University of Virginia.

William Walton Woodhouse, III, *Associate Professor of Spanish,* A.B., University of North Carolina at Chapel Hill; M.A., Ph.D., University of Wisconsin.

Andrew J. Worsey, *Assistant Professor of Mathematical Sciences,* B.Sc., Durham University, Durham City, England; Ph.D., Brunel University, Uxbridge, England.

Eleanor Boyd Wright, *Associate Professor of Education,* A.B., Greensboro College; M.A., State University of New York, College of Geneseo; Ph.D., University of North Carolina at Chapel Hill.

Joanna Ennis Wright, *Assistant Professor and Head of Special Services,* B.A., East Carolina University; M.S.L.S., University of North Carolina at Chapel Hill.

Charles G. Yarbrough, *Adjunct Associate Professor of Biology,* B.S., M.A., Wake Forest University; Ph.D., University of Florida.

G. Frank Yelverton, *Adjunct Research Associate in Biology,* B.S., University of North Carolina at Chapel Hill; M.S., University of North Carolina at Wilmington.

John Zeko, *Assistant Professor of Accountancy,* A.B., University of North Carolina at Chapel Hill; M.P.A., Georgia State University; CPA.

William M. Zinkus, *Lecturer in English,* B.A., M.F.A., Western Michigan University.

Victor A. Zullo, *Professor of Geology and Adjunct Professor of Biology,* B.A., M.A., Ph.D., University of California at Berkeley.

RETIRED FACULTY

***Franklin H. Allen, M.S. (1956-1981),** *Associate Professor of Biology*

***Joseph C. Awkard, Jr., Ed.D. (1979-1985),** *Professor of Psychology*

***Anne Barksdale, M.S. (1947-1966),** *Assistant Professor of Business*

Mary Dixon Bellamy, M.A. (1961-1988), *Assistant Professor of Spanish*

Luetta Navada Booe, M.S. (1965-1975), *Professor of Nursing*

Samuel Tinsley Chambers, Ph.D. (1964-1976), *Professor of History*

***James Marshall Crews, Ed.D. (1948-1981),** *Professor of Mathematical Sciences*

Henry G. Crowgey, Ph.D. (1967-1981), *Professor of History*

***Derick G.S. Davis, M.S. (1971-1983),** *Assistant Professor of Recreation*

***Will Scott DeLoach, Ph.D. (1963-1977),** *Professor of Chemistry*

***Jack Dermid M.S. (1962-1985),** *Associate Professor of Biology*

Joseph F. Dunn, M.Ed. (1968-1980), *Assistant Professor of Business Administration*

Anne Mackie Fitzgibbon M.A. (1965-1985), *Assistant Professor of Drama*

Isabell L. Foushee M.A. (1964-1986), *Federal Compliance Officer, Assistant Professor of English*

***Antolin Gonzalez-del-Valle, Ph.D. (1964-1976),** *Professor of Spanish*

***Helen Hagan, M.L.S. (1964-1974),** *Director of Library Services*

***B. Frank Hall, Th.D. (1963-1979),** *Professor of Philosophy and Religion*

Vicente Nestor Hernandez D.Sc. (1963-1985), *Associate Professor of Mathematical Sciences*

***Claude F. Howell, H.H.D. (1953-1980),** *Associate Professor of Art*

***Adrian D. Hurst, M.A. (1947-1968),** *Associate Professor of Mathematics*

***Mildred Johnson, M.A. (1947-1960),** *Professor of Social Sciences*

Ruby Bame Knox, M.Ed. (1962-1978), *Assistant Professor of Business*

***Glenn Richard Long, M.A. (1966-1983),** *Assistant Professor of Mathematical Sciences*

***Margaret Shannon Morton, M.A. (1947-1965),** *Professor of English*

A. Carl Nelson (1982-1988), *Lecturer in Mathematical Sciences*

Rolla Clayborne Nelson M.A. (1961-1988), *Assistant Professor of Physics*

J. Paul Reynolds, Ph.D. (1964-1971), *Vice Chancellor for Academic Affairs*

***Eloise Scott, M.A. (1968-1976),** *Assistant Professor of Mathematical Sciences*

Philip C. Smith, Jr., M.L.S.(1969-1985), *Assistant Professor and Reference Librarian*

***Betty Holden Stike, M.A. (1964-1983),** *Assistant Professor of Education*

David E. Warner, M.Ed. (1965-1979), *Associate Professor of Health, Physical Education and Recreation*

***E. M. West, Ed.D (1963-1981),** *Professor of Business Administration*

Betty Sue Westbrook, M.L.S., (1965-1985), *Assistant Professor and Head of Cataloging*

Mary Alice Whitfield, M.S., (1965-1979), *Assistant Professor of Nursing*

**Emeritus status*

Randall Library UNCW

INDEX

Academic Affairs 56
Advisors 56
Honor Code 57
Probation 60
Programs 64
Regulations 56
Suspension 60
Accountancy and Business Law 181-183
Accreditation 12-13
Administrative officers and staff 7-8
Admissions 18
Former students 20-21
Freshmen 19
Graduate 22
High school students 22
International students 22
Notification of acceptance 18
Nursing program 20, 209
Senior citizens 22
Special students 21
Summer visitors 21-22
Transfer students 20
Three-year rule 20-21
Unclassified students 21
Adult education program 224
Advanced placement 56-57
Agriculture, preprofessional program 219
American Indian Student Legislative Grant 32
Anthropology 167-170
Application dates 18
Application fee 19
Areas of study 64
Army ROTC 142-144, 223
Art 84-86
Art exhibitions 52
Athletics 51
Attendance regulations 59
Auditing courses 58
Awards 53-54
Bachelor of Arts degree 64
Bachelor of Science degree 64
Basic studies requirements 68-69
Biological Sciences 71-79
Board of Governors 10
Board of Trustees 12
Buildings 15-16
Business Administration, Cameron School of, Admissions requirements 180
Degrees, concentrations 180
Accountancy courses 181-183
Business Law courses 183
Economics courses 183-186
Finance courses 186-187
Management courses 188-189
Marketing courses 190-191
Production and Decision Sciences courses 191-192
Calendar of events 5-6
Campus 15
Campus map 288
Career Planning and Placement Center 45
Change of Major 57
Change of name or address 62
Chemistry 79-83
Class attendance 59
Classification of students 60
Clubs and organizations 51
College of Arts and Sciences 71
Computer Science 132-135
Continuing Education 224
Correspondence credit 59
Course descriptions 70
Creative Arts 83
Art 84-86
Drama 86-89
Music 89-97
Speech Communication 97-100
Credit 56
Correspondence 56
Transfer 56
Criminal Justice 172-173
Curricular Studies 193
Dean of Students Office 44
Dean's list 57
Debate team 52
Deficiencies 59
Degrees offered 64
Areas of study 64
General requirements 66-67
Requirements for second degree 62
Dentistry, preprofessional program 220
Directed individual study 70
Directory information 46
Dismissal 60
Disruption of educational process 46
Dormitories 16

Drama 86-89
Earth Sciences 103
Economics and Finance 183-189
Education, School of 200
  Admissions requirements 66
  Courses 200-206
  Degrees, concentrations 194-200
Educational Design and Management 193
Employment 38
Engineering 106-107
English 108-115
Environmental Studies 115-116
Examinations
  Admissions 19
  Advanced placement 56
  Final examinations 59
Exemptions 57
Expenses 25-26
Extension program 225
Faculty 266-282
Fees
  Application 20
  Graduate 230
  Graduation 26
  Late registration 26
Field experience in biology 223
Final examinations 59
Financial Aid 32
  Undergraduate 32
  Graduate 233
Food service 45
Forensics team 52
Foundation Chair 14
French 144-146
Freshmen 19
  Admissions 19, 24
  Orientation 56
  Registration 56
General College Advising Program 65
General degree requirements 66-69
Geography 101-104
Geology 104-106
  Graduate 255
German 148-149
Grade appeals 59
Grading 57
Graduate studies 228
  Adding, dropping, withdrawing 235
  Admissions requirements
    General 228-229
    Master of Business Administration 229
    Master of Education 229
    Master of Science 230
  Application for admission to candidacy and the degree 237
  Course credit 234
  Degree time limits 237-238
  Examination, comprehensive 236-237
  Foreign language requirement 237
  Financial aid 233
  Graduate grading 235-236
  Master of Business Administration 229, 238
    Course descriptions 239-243
    Accountancy 239
    Management 240
    Economics 241
    Finance 241
    Marketing 242
    Production and Decision Sciences 242
    Degree requirements 238
  Master of Education 229, 243
    Course descriptions 247-254
    Degree requirements 243-247
    Educational Administration and Supervision Program 247
      Administrative Track 247
      Supervision Track 247
    Elementary Education Program 243-245
      Early Childhood Track 244
      Intermediate Track 244
    Reading Education Program 245-246
    Special Education Program 246
  Master of Science in Geology 230, 255
    Course Descriptions 255-257
    Degree Requirements 255
  Master of Science in Marine Biology 230, 257
    Course descriptions 259-264
    Degree requirements 258
    Tracks
      Biological Oceanography 258
      Coastal Biology 258
      Marine Biology 258
Graduate Studies Index Ends
Minority Presence Grant Program 233

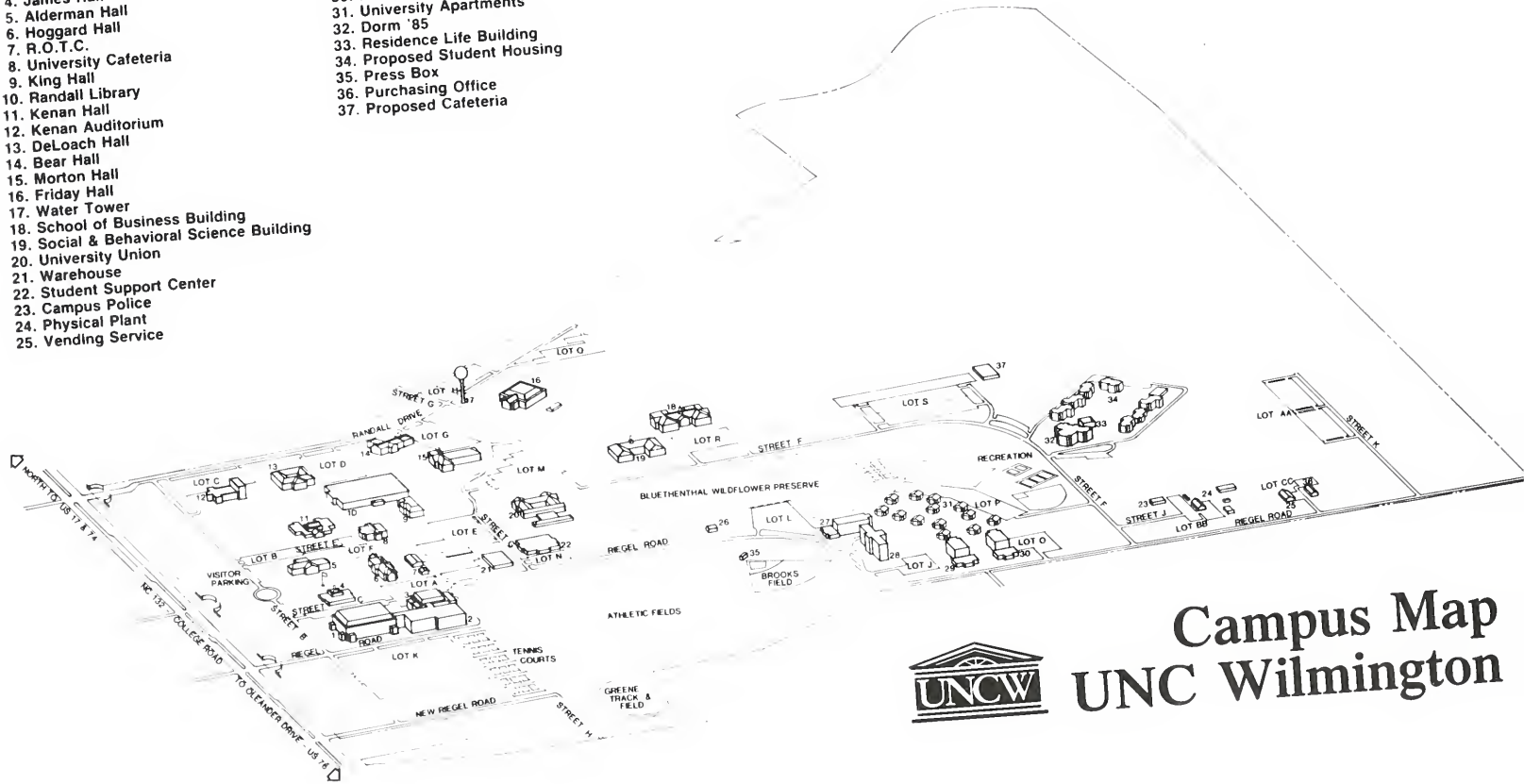
On-campus living 237
Procedure for protest of grade 236
Refunds 231-232
Registration 234
Residence credit computation 236
Residency status for tuition payment 232
Summer session 231
Thesis 237
Tuition and fees 230-231
Veterans educational benefits 234
Withdrawal 235
Graduation 26, 61
Application 61
Fee 26
Requirements 61
With distinction 62
Grants 32-33
Health examination 69
Health Insurance 46
Health, Physical Education and Recreation 117-124
Health services 45
History 124-131
History of UNCW 11
Honor Code 57
Honor societies 53
Honors Program 61
Housing 45
Humanities area requirements 65
Incomplete grades 57
Indebtedness 62
Information Center 50
In-state status for tuition 28
Institute for Marine Biomedical Research 222-223
Insurance, student health 46
International students 22
Law, preprofessional program 219
Library 16
Loans 38-39
Majors, areas of study 64
Major, double 61
Management 188-189
Marine Biology 72
Graduate 222-257
Marine Science Research 222
Marketing 190-191
Mathematical Sciences 131-142
Meals 27
Medical services 45
Medical Technology 217-218
Medicine, preprofessional program 220
Military Science 142-144
Minority Affairs Office 50
Minority presence grant program 234
Modern Languages 144-149
Music 89-97
Musical organizations 51-52
Natural science requirements 68
Nondiscrimination Policy 22
Nursing program 207-215
Off-campus courses 59
Office of Special Programs 224
On-campus living 27
Organizations and clubs 51
Orientation 56
Out-of-state status for tuition 26
Parks and Recreation Management 121
Payments 26
Pharmacy, preprofessional program 221
Philosophy and Religion 149-154
Physical Education 117-124
Physics 155-157
Placement service 45
Political Science 157-161
Portuguese 149
Postal Services 50
Preprofessional programs 219
Agriculture 219
Dentistry 220
Engineering 219
Forestry 219
Law 219
Medicine 220
Pharmacy 221
Physical Therapy 221
Veterinary Medicine 221
Preregistration 56
Production and Decision Sciences 191-192
Probation, academic 60
Professional programs 216
Medical Technology 217-218
Nursing 218
Teacher Education 218
Psychology 162-166
Publications, student 51
Readmission 60
Recreation courses 121-124
Refunds 27-28
Registration 56

Religion 152-154
Repeating of courses 58
Residence status for tuition 28
Requirements
Admission 18-19
Basic studies 68-69
Double major 61-62
Graduation 61
Physical Education 69
Retention 60
Second degree 62
Residence Life Program 45
Retention chart 60
ROTC, See Military Science
Safety and health program 23
Scholarships 33
School of Business Administration, Cameron 66, 180
School of Education 66, 193, 243
School of Nursing 67, 207
Second degree requirements 62
Senior citizens 22
Social Science 167
Social Work 173-179
Sociology and Anthropology 167-179
Spanish 146-148
Special Education 198
Special programs 222
Army ROTC program 223
Continuing Education 224
Environmental Studies 223
Extension 225
Field Experience in Biology 222-223
Institute for Marine Biomedical Research 222
Marine Biology curriculum 222
Marine Science Research 222
Office of Special Programs 224
Special students 21
Speech Communication 97-100
Statistics 140-142
Student Activities Office 50
Student Affairs 44
Student conduct 46
Student Development Center 44
Student Development Services 44
Student Government Association 50
Student Health and Wellness Center 45
Student life 50-54
Student Organizations 51
Summer school 224
Suspension 60
Teacher Education Program 218
Teaching Excellence Award 14
Thesis 237
Three-year rule 20-21
Transcripts 62
Transfer students 20
Admission 20
Credit 20
Trial courses 70
Tuition and fees 26
Unclassified students 21
Admission 21
Definition 21
University of North Carolina 10
Board of Governors 10
General Administration Officers 10
History 11-13
University Program Board 51
University Readers Theatre 52
University Theatre 52
University Union 44, 50
Veterans' Affairs 41
Veterinary Medicine, preprofessional program 221
Withdrawal 58
Work programs 38

NOTES

LEGEND

1. Trask Coliseum
2. Natatorium
3. Hanover Hall Gymnasium
4. James Hall
5. Alderman Hall
6. Hoggard Hall
7. R.O.T.C.
8. University Cafeteria
9. King Hall
10. Randall Library
11. Kenan Hall
12. Kenan Auditorium
13. DeLoach Hall
14. Bear Hall
15. Morton Hall
16. Friday Hall
17. Water Tower
18. School of Business Building
19. Social & Behavioral Science Building
20. University Union
21. Warehouse
22. Student Support Center
23. Campus Police
24. Physical Plant
25. Vending Service
26. Field House
27. Belk Hall
28. Galloway Hall
29. Graham Hall
30. Hewlett Hall
31. University Apartments
32. Dorm '85
33. Residence Life Building
34. Proposed Student Housing
35. Press Box
36. Purchasing Office
37. Proposed Cafeteria



Campus Map
UNC Wilmington

The University of North Carolina
at Wilmington
Wilmington, N.C. 28403-3297

FOURTH
CLASS
BOOK RATE

RANDALL LIBRARY-UNCW
3 0490 0419687 8

HECKMAN
BINDERY INC.
AUG 91
N. MANCHESTER,
INDIANA 46962